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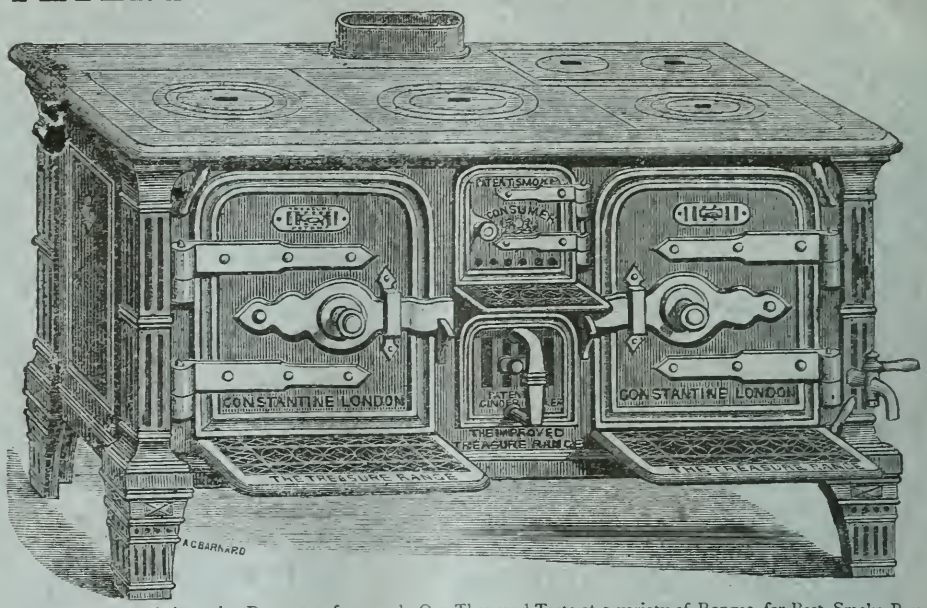

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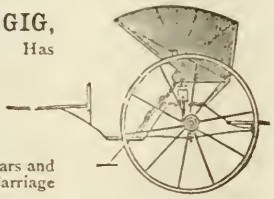

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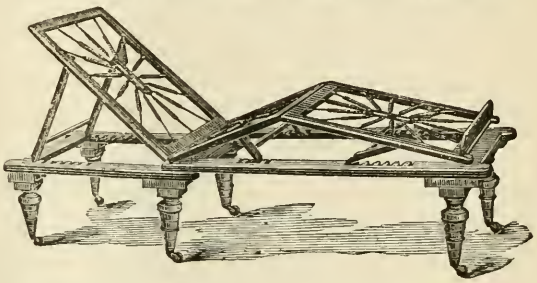

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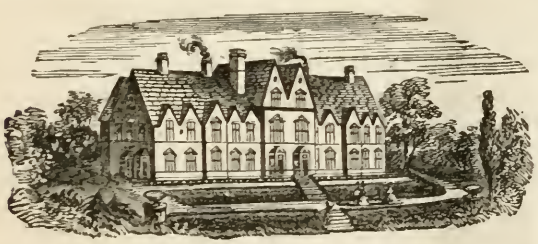

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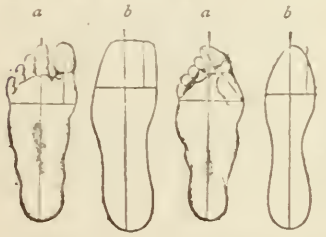

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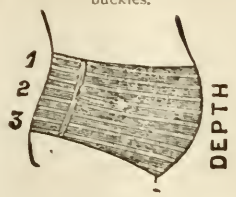

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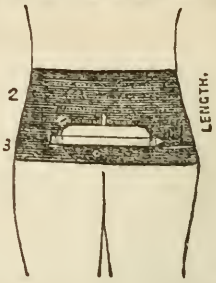

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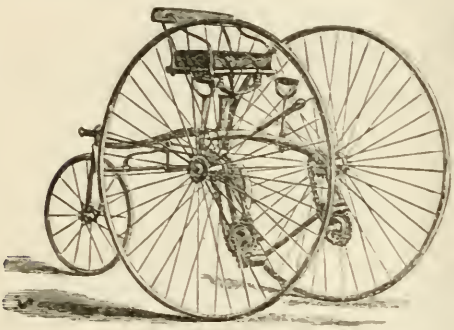

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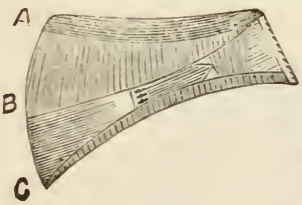

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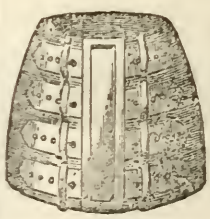

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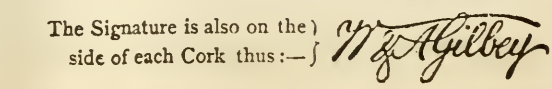

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ROSSBACH ON COUGH AND EXPECTORATION.*

IN the first of the articles mentioned below, Dr. M. J. Rossbach, after commenting on the feebleness of our knowledge of the secretion of mucus along the respiratory tract, and of the effects of the various remedies on abnormal states of secretion from mucous membranes, relates his experiments on the exposed trachea, chiefly made on cats. Normally, there is a thin layer of mucus on the mucous membrane, which does not disappear when a great deal of ordinary air passes over it. When this mucus is dried up by blotting paper, it re-forms in from half a minute to two minutes, but never in such quantities as to flow off or appear in drops. Rossbach concludes from this that the mucous glands of the bronchial mucous membrane do not constantly secrete, but only when (through the evaporation of the mucous layer) the external stimulant is able to affect the mucous membrane. It is probable that the mucus is not all passed out at once; the mucin is first secreted, and then comes a flow of watery alkaline fluid, which holds the mucin in solution. Continuous stimulation (by constant drying, by dusting the mucous membrane with some powder) always produces fresh quantities of secretion. The excretion was alkaline; it contained mucin, but no formed elements, nor anything corresponding to ptyalin. It is pointed out that the respiratory tract must be kept continually moist, and must be protected from inflammation, so that just the necessary amount of fluid shall be secreted, and no more. Foreign substances (dust, pathogenic organisms) must be carefully excluded. The secretion is quite independent of, or only very slightly dependent on, sensory nervous stimulation; at all events, the flow goes on quite as well when all external nervous influences are withdrawn. On the other hand, both laryngeal nerves contain vaso-motor fibres, and there is a certain relationship between secretion and vascular fulness.

The experiments on the effect of cold on the tracheal mucous membrane are interesting. The bodies of animals were first subjected to a hot poultice, and then suddenly an ice-bag was substituted. Half a minute after the application of the ice-bag, the whole of the respiratory mucous membrane, including the larynx, became quite white, owing to vascular spasm. After one or two minutes, the spasm gradually relaxed, and in its greatest degree the colour was a deep blue-red. Such a quantity of watery secretion occurred, that it flowed off. On taking off the ice and replacing the poultice, the blue-red soon gave way to a more red colour. A fresh application of ice recalled the vascular spasm; but this time it was more tardy and less marked. These phenomena are regarded as of reflex mechanism. Rossbach found that the action of alkalies (after their entrance into the blood) was to diminish and finally to dry up the secretion from the tracheal mucous membrane (contrary to the usual doctrine). The same effect is believed to hold good for men using alkaline waters.

In the direct application of alkalies (as by inhalation), Rossbach observed no effect. Weak solutions of potash or acetic acid, applied directly to the mucous membrane, caused strong hyperæmia and increased secretion. Astringents (tannin, alumen, nitrate of silver to 4 per cent.) brought about an opacity of epithelium, with total cessation of secretion. Observations on the mucous membrane and its vessels were not possible in this cloudy state of epithelium. Air passed through oil of turpentine and on to the mucous membrane gradually determined an absence of secretion, but this gave way when the blast of air and turpentine was stopped. A watery solution of the oil of turpentine increased the secretion, whilst the vessels became constricted; therefore, this medicament is of great practical value, for, whilst diminishing hyperæmia, it increases the fluidity of the sputa; and, besides, it has an antiseptic influence on decomposing mucus.

Apomorphia, emetin (ipecacuanha), and pilocarpin increase the secretion. These three agents are expectorants *par excellence*. Practically, Rossbach believes that apomorphia is the best, as producing least nausea and anorexia. The strongest (pilocarpin), owing to its action on the salivary and sweat-glands, as well as its effect on the heart, is not recommended. Rossbach has not had sufficient experience of emetin, although the action of ipecacuanha is well known. Atropin and its related alkaloids are just the antitheses of the above. The narcotic influence of atropin was found to be very uncertain.

Under the use of morphia, it was observed once that there was a considerable decrease in the secretion (to about one-fifth of the normal amount), as well as great diminution in coughing. A complete cessation of secretion was not produced by morphia. Experiments on animals and in practice were made on the joint action of morphia and apomorphia with favourable results.

1. Hydrochlorate of apomorphia may be used as an expectorant; the best prescription is: R. Hydrochlorate of apomorphia, 3 to 5 centigrammes (about 0.45 to 0.75 gr.); dilute hydrochloric acid, 5 cubic centimètres; distilled water, 150 cubic centimètres. Keep in a black glass bottle. The dose is one tablespoonful every two hours.

2. The combination of apomorphia and morphia lessens the frequency of cough and increases the fluidity of the sputa: R. Hydrochlorate of morphia, hydrochlorate of apomorphia, of each 3 centigrammes; dilute hydrochloric acid, half a gramme; distilled water, 150 grammes. One tablespoonful is given every two or four hours.

3. Morphia and atropin must be made up separately, as follows: Hydrochlorate of morphia, 2 to 5 centigrammes; distilled water, 120 grammes; red syrup, 30 grammes. The dose is one tablespoonful every two to four hours. R. Sulphate of atropia, half a milligramme (about 1-150 grain); liquorice powder and juice, enough to make twenty pills. One, two, or three pills are to be taken every night. These pills of atropin are best given in the evening from six to ten o'clock, at intervals of two hours, simultaneously with one or two spoonsful of the morphia solution; only the morphia to be given during the day should the cough indicate it. This joint action

* Ueber die Schleimbildung und die Behandlung der Schleimhauterkrankungen in den Luftwegen.—Ueber die Behandlung des Hustens und Schleimauswurfs. (*Berl. Klin. Woch.*, Nos. 19 and 20, 1882.)—Nachtrag zur Behandlung des Husteus und Schleimauswurfs. (*Ibid.*, No. 27, 1882.)

is recommended in catarrh, emphysema, and phthisis with abundant sputa (when, in the last, this does not come from cavities). ANGEL MONEY, M.D.

FÉRÉ ON HEREDITARY ATAXY, FRIEDREICH'S DISEASE, DIFFUSE SCLEROSIS OF THE SPINAL CORD AND MEDULLA OBLONGATA.

THE expression, hereditary ataxy (*Le Progrès Méd.*, November 1882), has introduced a regrettable confusion into the pathology of the nervous system. If, for example, we understand this term in the modern sense which it has acquired since the labours of Friedreich* it is not applicable to the disease designated; for, as we shall see, it refers to progressive locomotor ataxy. If, on the other hand, it would indicate that this form of degeneration is specially hereditary, it is very inapt, because the ataxy of Duchenne is also frequently directly inherited, though more frequently the inheritance is the neuropathic disposition. M. Charcot has specially insisted on this point in the etiology of tabes. But in this disease the adjective hereditary might be advantageously replaced by that of family, as it is specially liable to occur in several children of the same family. The expression hereditary ataxy being manifestly improper, it may be provisionally described as Friedreich's disease.† Friedreich's disease has been considered a disease of puberty, but it may be developed in early infancy. Two cases quoted by Hammond died at 3 years of age; it is also seen in adolescence, after 20. Contrary to Friedreich's opinion, it is more common in the male sex. Friedreich describes nine cases; Carré‡ 1, Schmid§ 2, Brousse 1, Hammond 12, Quincke‖ 2, Carpenter¶ 2, Kellog** 2, Gowers†† 5, Seeligmüller 2; making 38 cases actually known, of which 22 are boys and 16 girls. The occurrence in several children of the same family indicates a hereditary weakness or arrest of development of the spinal cord‡‡. The occasioning causes are still undetermined.

The affection usually commences without prodromata by the appearance of special weakness in one of the lower limbs, and even often in both. Alterations of sensation are rare at this stage. Walking becomes uncertain, without presenting quite the characters of in-coordination of tabes; the patients walk, as Hammond says, with their legs apart and as if drunk.§§ Little by little the erect position becomes impossible, but in some cases this seems to be as much the result of true paralysis as of inco-ordination.

The weakness and uncertainty of movement spread rapidly to the upper extremities, shown at first by slight tremblings; sometimes the affection appears at first in the hemiplegic form. Generally inco-ordination is not increased by closing the eyes, and is only shown in the performance of voluntary movements. Later on, the trunk and head move irregularly; the head oscillates like that of a person asleep in a chair; these oscillations increase when the patient moves, and stop when he is immobilised by some support. After some years the tongue participates in the trembling, speech becomes hesitating, and ends by being unintelligible; there are sometimes complete attacks of glossoplegia (Brousse). The muscles of the eye are also invaded; there is frequently nystagmus, ordinarily in the horizontal axis, and when the eyes are voluntarily moved.* Ultimately there is more or less complete paralysis of all four extremities, often with atrophy; then also there may be cramps and temporary contractures.

It is rarely, except at this period, that troubles of sensibility appear, chiefly in shape of anæsthesia of the lower limbs. Sometimes there are pains, but rather wandering than lightning or darting.

Electro-muscular sensibility appears to diminish with the cutaneous and articular sensibility. The reflex sensation persists, while the sphincters are more affected. Patellar reflex generally persists, and is sometimes even exaggerated. The special senses are intact. There are never any bedsores. Intelligence is unaffected; but there is often vertigo, noticed by Friedreich, which comes on suddenly in any position of the patient; and there are apoplectiform attacks, recurring some time before death, and which carried off M. Grasset's patient, 'characterised by a rapid but incomplete loss of consciousness, by resolution of the limbs, general anæsthesia, considerable difficulty in breathing, which was jerking and noisy, by tumultuous action of the heart, great frequency of the pulse (130), and increase of temperature (102.2 deg.)' (Brousse).

In men there is nearly always impotence, and in women menstruation is irregular and deranged. The progress of the disease is slow and fatally progressive. Its duration cannot yet be determined. Coleman's two children died after three years, but it may last eight to thirty years.

Whilst Topinard†, Carré, Möbius‡, Erb§, Grasset‖, agree with Friedreich in regarding it as a form of locomotor ataxy, Charcot and Bourneville¶ have expressed the opinion that in some cases at least, it is the result of disseminated sclerosis, an opinion not contradicted by some of the necropsies. In fact, it occupies an intermediate position between these two conditions, partaking of the characters of both, but differing from each.

Friedreich's disease comes on ordinarily after the first dentition, a character unlike tabes, though that, no doubt, does occur at an earlier age than was formerly believed. In the symptoms of Friedreich's disease, sensory troubles are almost entirely absent, while in tabes these are constant and early, in the form of lightning pains, patches of hyperæsthesia and anæsthesia, numbness of the feet, arms, etc.

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* Ueber Degenerativ Atrophie der Spinalen Hinlterstränge (Virchow's *Archiv*, Band xxvi, pp. 391, 433, and Band xxvii, x.) Ueber Ataxie mit besonderer beruchsichtigung der Hereditären Formen (Virchow's *Archiv*, Band lxviii, p. 145, Band lxx, p. 140.)

† BROUSSE.—*De l'Ataxie Hereditaire* (*Maladie de Friedreich*), Paris, 1882.

‡ CARRE.—*Nouvelles Roch. sur l'Ataxie Locom. Progress.* Paris, 1865.

§ SCHMID.—Ueber Hereditäre Ataxie. (*Correspondenz-Blatt für Schweizer Arzte*, 1881, p. 97.)

‖ Quoted by Friedreich.

¶ Quoted by Gowers.

** KELLOG.—Two Cases of Locomotor Ataxy in Children. (*Arch. of Elect. and Neurology*, 1875, vol. ii, p. 182.)

†† GOWERS.—*Trans. of the Clinical Society of London*, 1880, p. 1.

‡‡ KAHLER AND PICK.—*Arch. für Psych. und Nervenkr.*, Band viii, p. 251.

§§ HAMMOND.—On the so-called Family or Hereditary form of Locomotor Ataxia. (*Journal of Nervous and Mental Diseases*, New York, 1882, p. 484.)

* SEELIGMULLER.—Hereditäre Ataxie mit Nystagmus. *Arch. für Psych. und Nervenkr.*, Band x. (*Handbook der Kinderkr.* Herausgegeben von C. Gerhardt, fünfter Band, vierte Abtheil, Zweite Hefte, 1871.)

† TOPINARD.—*De l'Ataxie Locomotive.* Paris, 1874, p. 369.

‡ MÖBIUS. — Ueber die Hereditäre Nervenkrankheiten (Volkmann's *Sammlung Klinischer Vorträge*, 1879.)

§ ERB.—*Ziemssen*, vol. xi, p. 601.

‖ GRASSET.—*Traité Pratique des Maladies du Système Nerveux*, 2nd ed., p. 321.

¶ BOURNEVILLE.—*Nouvelle Etude sur quelques points de la Sclerose en Plaques*, 1869, p. 212.

Affections of sight and hearing are also far from rare in true tabes. Whilst oculo-pupillary derangements, motor paralysis of the eye, and disorders of micturition are wanting in Friedreich's disease, they are rarely absent in tabes. The movements of the trunk and nystagmus scarcely are seen in true ataxy. Disorders of speech are not met with in ordinary tabes. As to Erb's sign, it fails here sometimes as in the classic form, in which the patellar reflex may not only be present but exaggerated.* Finally, there are never any bed-sores in Friedreich's disease.

When we compare the disease we are now discussing with disseminated sclerosis, we find fewer differences. The latter, also, may develop after the first dentition; both diseases agree in the absence of sensory and sensorial disorders, and in the disturbance of speech, vertigo, the integrity of the sphincters, etc. Disseminated sclerosis is distinguished by the tremor, which differs from the uncertainty of hereditary ataxy. It is distinguished also by the spasmodic character of the gait, by the exaggeration of the tendon-reflexes, by the contractures which are exceptional in the other affection, by the frequency of strabismus or diplopia, and by the intellectual troubles, which are completely absent in Friedreich's disease.

Clinically, therefore, this disease forms a distinct class. Let us see whether pathological anatomy will confirm this autonomy. Besides the common changes of chronic spinal meningitis, various changes are found in the spinal cord and medulla. The columns of Goll are much affected, but the columns of Burdach are also, notably in its exterior fasciculus. The sclerosis appears less pronounced in the dorsal region than in the lumbar and cervical parts, and it is in the lumbar part that it is most marked. It was only in Friedreich's first necropsy that the posterior columns alone were found affected; may not the investigation have been imperfect? In all other cases, the lateral columns have been involved also, and in many the lesion has extended in an irregular manner to the anterior columns. The columns of Clarke may also be affected (Brousse); and in one case lacunar spaces were found in the grey matter. Schultze has observed a diminution in the size of the cord taken as a whole. The same state of things exists in the medulla, where the sclerosis may be seen passing into the posterior pyramid and towards the floor of the fourth ventricle, reaching the nucleus of the hypoglossal. The posterior roots are ordinarily atrophied and indurated; the hypoglossal, the brachial, crural, and sciatic nerves may be more or less atrophied. Thus, from this point of view, too, hereditary ataxy differs from the classical locomotor ataxy.

Instead of a systematic lesion, generally limited exclusively to the posterior columns, we have to do with a combined sclerosis of the different columns of the cord, predominating, it is true, in the posterior cords, but rapidly invading the others; it is a diffuse sclerosis of the cord and medulla. Its clinical analogies with disseminated sclerosis are explained by the distribution of the lesions.

According to Friedreich, the lesion commences in the posterior columns, and is spread by the posterior meningitis, which accounts for the predominance of the lesion at the periphery; but it is sometimes most marked around the central canal (Brousse). Sometimes the lesions in the medulla oblongata are very advanced, and Hammond thinks the disease commences there. This author is disposed to believe that there is some affection of the cerebellum, which accounts for the vertigo, nystagmus, peculiar gait, and pain in the back of the head, of which many patients complain.

We may compare with this the combined sclerosis of the posterior and lateral columns described by Prévost,* the cases of sclerosis of the posterior columns coinciding with degeneration in foci of the cord observed by Westphal† and Schultze‡; but these facts, which are anatomically identical, differ also clinically from Friedreich's disease.

Robert Saundby, M.D.

* Thieme.—*De la Conservation des Reflexes Tendineuses dans l'Ataxie Locomotrice*, 1881.

* Prevost.—*Arch. de Phys. Norm. et Path.*, 1877, p. 764.
† Westphal.—*Arch. für Psych. und Nervenkrankheiten*, Band ix, Heft 2, p 389.
‡ Schultze.—Virchow's *Archiv.*, Band lxxix p. 132.

CHANDLER ON NERVE-STRETCHING.

As a termination to a paper on the value of nerve-stretching as a mode of treatment (*New York Med. Rec.*, Sept. 9th, 1882), Dr. Chandler appends tables relating to no fewer than 416 cases collated from the practice of European and American surgeons, a large enough number to allow the formation of a proximate judgment on the subject. As will be seen, they fully bear out the opinion now generally held, that nerve-stretching is an exceedingly valuable remedy in cases of obstinate neuralgia and some spasmodic affections, but of very questionable benefit in cases of central disease.

Of the whole number of cases operated on, we find that 164 were cured (39.4 per cent.), 135 underwent improvement (32.4 per cent.) This includes 21 cases of central disease, reported as slightly improved, and in 117 cases (28.1 per cent.) the operation failed completely; in two of these, the condition for the relief of which it was performed was aggravated.

The tables are, however, so arranged as to allow an estimate to be made of the success of the practice in its special applications.

Table A contains cases of neuralgia only, being sub-divided into four categories.—1. sciatica; 2. traumatic neuralgia; 3. neuralgia of the fifth nerve; 4. miscellaneous neuralgic affections. The total number of cases included is 180; and of these, 121 (67.2 per cent.) are reported as cures, 18 (10 per cent.) as improved, and 41 (22.7 per cent.) as failures.

The figures in this section are somewhat depressed by the inclusion of 37 cases of neuralgia of the fifth nerve, and these are further complicated by the fact that in 7 the nerve was both stretched and excised. The most uncomplicated and best are obtainable from section 1, including cases of sciatica only; here we have 94 cases (adding 24 of Nussbaum's from the appendix), with 74 cures (78.7 per cent.), 9 improvements (9.5 per cent.), and 12 failures (12.7 per cent.) These cases were many of them of old standing, varying in duration from three months to many years.

Table B relates to cases of spasmodic affections, and is divided into two sections: 1. mimic spasms; 1. torticollis, etc. The results here also are remarkably good. Thus, of 27 cases, 19 (70 per cent.) underwent cure; 2 (7.4 per cent.) improved, and 6 (22.2 per cent.) only failed. In this case, again, however, the results are somewhat interfered with, by the fact that in 5 cases, in which the spinal accessory was stretched, a portion was also excised.

Tables C and E contain so few cases as to be of little statistical value. C contains 5 cases of contracture with 2 cures (40 per cent.), and 3 failures (60 per cent.); and E, 4 cases of epilepsy, with one cure. To this table, however, may be added 11 cases of reflex epilepsy, reported in the appendix by Nussbaum, all successful, which gives 15 cases with twelve cures (80 per cent.), and three failures (20 per cent.), one of the latter being reported as improved, and the other two as relieved.

Table D, peripheral paralysis, is of special interest as containing the results of 33 case of nerve-stretching in anæsthetic leprosy, in all of which sensation returned soon after the operation, and muscular strength was regained. This table includes 39 cases, with 1 cure (2.5 per cent.), 36 improvements (92.3 per cent.), and failures (5.1 per cent.) These latter were cases of infantile paralysis.

Table F contains (together with Nussbaum's) 92 cases of central disease, in which nerve-stretching was resorted to. The number is made up by locomotor ataxy, 67; diseases of nervous centres, unspecified, 9; paralysis agitans, 1; lateral sclerosis, 2; anterior sclerosis, 1; multiple sclerosis, 1; athetosis, 1; hemiplegia with contractures, 2; myelitis, 4; cancer of spinal cord, 1; injury to spinal canal and cord, 1; spastic spinal paralysis, 1. The special interest in this table depends on the large number of cases of tabes dorsalis included. Of these, 37 (55 per cent. are reported as improved; 17 (25.1 per cent.) as slightly or temporarily improved, 10 (14.9 per cent.) as failures—1 as an aggravated failure, and 3 (4.4 per cent.) died—1 from a cause not given, 1 from chloroform, and 1 from thrombosis and multiple embolism. All the observers agree in allowing the improvement with regard to the lightning-pains, but the girdle-pains were, as a rule, unaffected. The only cases in which any details are given, are 8 by Dr. Mikulicz of Vienna; in these, the ataxy symptoms were unchanged in 5 cases; once there was slight improvement, and twice the ataxia was increased. Sensation was not improved in 4 cases; in 2 there was temporary improvement; and in 2 improvement persisted over three months. The symptoms referable to the bladder and rectum were, in 2 cases, improved; in 1 case impotency was removed, and in 1 case paralysis of the bladder supervened upon the stretching. In all the cases, the lightning-pains were relieved for a longer or shorter time. A point of interest is recorded regarding a patient of Sonnenberg's, in whom a relapse as to lightning and girdle pains took place five weeks after stretching the sciatic nerve; the patient then fell and fractured his patella, and the accident was followed by a similar temporary remission of the pains.

Table G contains 50 cases of traumatic tetanus, with 9 (18 per cent.) cures, 3 (6 per cent.) improvements, and 38 (76 per cent.) failures. Two of the successful cases are complicated by the fact that Calabar bean was also given, ostensibly without effect.

Table H contains 8 cases of stretching of the optic nerve for neuritis; in 2 of which the neuritis is said to have slightly improved.

Sufficient details are not given to afford material for any general consideration, except as to results; but some points of interest are included under the head of remarks. First, as to the condition of the nerves stretched; the absence of any observations as to their appearance leads us to conclude in most cases they were, at any rate, microscopically normal. The cases in which any morbid appearances are mentioned, are 4 of neuralgia from table A; 2 of sciatica, in 1 of which the nerve is described as in a state of 'fatty degeneration', and in the other a small neuroma was removed; a case of traumatic neuralgia, in which extravasated blood was found within the sheath of the posterior tibial nerve, and another in which the sheath of the occipitalis major was found thickened and injected. In one case of anæsthetic leprosy the right ulnar nerve was thickened, and three times its normal size, while the left was thickened, but not uniformly; and, lastly, the sciatic nerve, in a case of paralysis agitans, is spoken of as dirty brown in colour, hard, and creaking under 40 lbs. traction.

As to the operation itself and its consequences, in 6 cases of sciatica it had to be repeated, and was then successful; and, in some of the other cases, a second operation was needful. The complications in such a large number of cases, if all stated, seem very insignificant, in comparison with the gravity of the operations. In two cases the wound is said to have suppurated; in one where the sciatic was stretched in the popliteal space, secondary hæmorrhage from the popliteal artery occurred; in a third, thrombosis of the popliteal vein was followed by multiple embolism and death; and, in a fourth, death resulted from entrance of air into the venous system. Three other deaths are recorded; one from shock in a case of multiple sclerosis where both sciatics were stretched, one from chloroform, and one from a cause not given. No mention is made here, of course, of the fatal cases of tetanus in which nerve-stretching was resorted to.

The only other ill consequences spoken of were dependent on the injury to the nervous system itself. Thus, in many cases, the temporary paralysis and anæsthesia resulting were very persistent, lasting as long as three months; in a case of sciatica, paralysis of the sphincter ani and anal region followed; and in another, of tabes dorsalis, paralysis of the bladder; in a case of myelitis, due to Pott's disease, the nervous symptoms were aggravated by stretching the sciatic, and this also occurred in one of the cases of tabes in which the sciatic nerve was stretched. Lastly, it may be mentioned that in one of the cases of anæsthetic leprosy the ulnar nerve gave way, but subsequently healed without the persistence of any lesion.

The nerve stretched is not in all cases given, but as far as can be calculated the numbers were as follows:—sciatic 179 (in 30 cases both nerves were stretched); internal popliteal 1; peroneal 3; posterior tibial 6; anterior crural 9 (in 4 both nerves); external spermatic 1; brachial plexus 24; median nerve 21; ulnar 19; musculo-spiral 4; radial 4; digital nerves 2; intercostals 2; great occipital 1; optic nerve 8; fifth nerve, first division 12; second division 12; third division 5; facial nerve 15; spinal accessory 10.

G. H. MAKINS.

OBERST ON LACERATION OF THE URETHRA.

DR. MAX OBERST of Halle, in a published lecture on the 'Treatment of Laceration of the Urethra in the Male' (Volkmann's *Sammlung Klinischer Vorträge*, No. 210), states that this injury, if properly treated, and if a free outlet be provided for the urine and effusion from the internal wound, need seldom ex-

cite serious apprehension; but, on the other hand, if not judiciously dealt with, it will, in many instances threaten the life of the patient, and impair the future functional capacity of the injured organ. Laceration of the urethra involving the membranous or bulbous portions of the urethra, or, less frequently, its vesical extremity, is usually caused either by direct violence applied to the perinæum, or by a displaced portion of a fractured pelvis. The wound may involve only a portion of the circumference of the urethra, or the canal may be torn through, and its continuity completely destroyed. In opposition to Gosselin, who holds that the laceration complicating fracture of the pelvis is usually incomplete, Dr. Oberst asserts that, in cases of this kind, the urethra is always completely divided. It is also held by Dr. Oberst that, in cases of incomplete laceration of the urethra, the small transverse wound is situated in the inferior (posterior) wall of the canal, and not, as has been stated by Poncet and Ollier, on the upper (anterior) wall.

In decided cases of partial laceration of the urethra, and in cases, also, where there may be a suspicion of the occurrence of such injury, it is decidedly indicated, Dr. Oberst states, to pass a large catheter into the bladder, and to allow this instrument to remain for some days. As the wound is almost always situated in the lower (posterior) wall of the urethra, the surgeon, in introducing the catheter, should keep its point as much as possible against the upper wall. By the early introduction of a catheter, urinary infiltration and its results may be effectually prevented. Suppuration, it is true, usually occurs at the seat of injury, in consequence of contusion, and probably by the destruction of some portion of tissue through the severity of the injury. Abscesses thus formed have not, it is stated, any serious import, and, as a rule, heal speedily after they have been incised. Dr. Oberst suggests that, in consideration of the almost constant occurrence of such abscesses after partial laceration, it might be advisable always to open the recent swelling of effusion in the perinæum, and to disinfect the seat of injury. The subsequent formation of a stricture in cases of partial laceration can be prevented only by long perseverance in the repeated use of the catheter.

Complete laceration, Dr. Oberst states, is more frequently met with than the former and less extensive injury. When presented in connection with broken pelvis, this fracture is usually of the variety known as the annular, or double vertical fracture, the solution of continuity involving the pelvis both in front and behind. In front, the framework of the foramen ovale is fractured—the horizontal ramus of the os pubis on one hand, and its descending ramus, or the ascending ramus of the ischium, on the other; and behind, either the sacro-iliac synchondrosis is separated, or there is a longitudinal fracture involving the posterior part of the ilium or the lateral part of the sacrum. In the production of an annular fracture of the pelvis, very considerable violence is always exerted. The action of a heavy falling body, a fall from a great height, or a crush between the buffers of two railway carriages, are the usual causes of such injury. The force in cases of this fracture, in Dr. Oberst's opinion, acts not in a direction from before backwards, as is stated in many text-books, but in such a way as to compress the pelvis laterally. The primary object of the treatment of complete division of the urethra is to establish a free discharge for the urine. The surgeon has also to bear in mind the necessity of preventing septic infection, and must ultimately endeavour to restore the normal course of the urethral canal. Prolonged attempts to pass a catheter into the bladder should be avoided, as with every attempt more hæmorrhage is apt to be set up, and there is increased risk of infective germs being carried into the wound by the instrument. The catheter should be used only for confirming the diagnosis, and to assist the surgeon, if it be necessary to resort to an operation. Suprapubic puncture of the bladder, which has been advocated by many French surgeons, can be regarded only as a palliative course of treatment, as it does not remove the necessity of further operative treatment for the restoration of the course of the urethral canal. Moreover, it affords no protection against infection of the deep-seated wound in the perinæum, and the operation is not free from danger. In the surgical practice at Halle, a free incision is made into the perinæum under antiseptic precautions, the wound is carefully disinfected by a solution of carbolic acid, a full-sized silver catheter is passed into the bladder from the perinæum and through the proximal fragment of the urethra, and the wound is then drained and tightly plugged and covered by antiseptic dressings. To the free protruding extremity of the catheter a long elastic tube is fixed, through which urine may flow away. Dr. Oberst states that he has never experienced any difficulty in finding the end of the proximal urethral fragment. This end may be recognised in the large perineal wound as a small protrusion resembling a firm blood-clot, or a small bleeding protrusion. In case of difficulty, this extremity may be made out on pressing over the bladder, so as to force some urine into the wound. Dr. Oberst states that the subsequent course of a case thus treated is usually very favourable, even when there has been extensive laceration of the soft parts and considerable displacement into the large wound of fragments of the pelvic bones. There is seldom any suppuration, and the patient usually recovers without incurring any septic dangers. The silver catheter should be replaced after an interval of two or three days by a Nélaton's soft catheter passed along the whole course of the urethra. After a further interval of from six to ten days, this may be removed, and a metallic catheter or sound be subsequently introduced every day during five or six weeks. In order to prevent stricture, the patient after recovery should himself continue the use of the catheter at increasing intervals for at least twelve months. The prolonged retention of a large catheter during the early stages of the treatment of urethral laceration is very liable to cause vesical catarrh; but this usually soon ceases after the removal of the instrument, and does not become severe if precaution be taken to use a catheter that is quite clean, and if a weak solution of salicylic acid be carefully injected into the bladder, and this agent be also given internally in small doses. For complete laceration of the urethra near the neck of the bladder, a similar plan of treatment is recommended. In cases of this kind, however, it is often found impossible to make out the proximal opening of the divided canal, and it then becomes necessary to have recourse to further means for establishing a free discharge for urine, and of facilitating subsequent attempts to restore the urethral canal. The proceeding advocated by Dr. Oberst is that of posterior catheterism, which consists in suprapubic puncture of the bladder, and in passing a catheter into the urethra from its vesical orifice. A case is

reported in which Volkmann, who was the first surgeon to apply this treatment, thus dealt successfully with a complete laceration of the urethra of two days' standing. W. JOHNSON SMITH.

HAAB ON CORTEX-HEMIOPIA.

DR. HAAB (*Klin. Monatsbl. für Augenh.*, May 1882) brings forward two very striking cases to prove the relation between lesions of a definite area of the cortex of the occipital lobe and homonymous hemiopia. Such observations are most important as enabling us to localise the cortical optic centre, and to determine the retinal area in connection with each such centre. Again, if we can establish the fact that destruction of a particular cortical area in one occipital lobe causes loss of function of the corresponding half of each retina, we go far to overthrow the arrangement given in Charcot's chart. According to the latter, the optic fibres that do not cross in the commissure do so further back, so that the whole of one retina has its centre on the opposite side of the brain.

The two patients died about the same time, the one under the care of Professor Huguenin, the other under that of Dr. Haab; and the *post mortem* examination of each was made independently by their respective physicians. On account of the importance of the cases, we give them at some length.

CASE I (Huguenin). The patient was a girl aged 8, living in bad hygienic circumstances. There was a family history of tubercle. She grew slowly, and remained small and thin, but always had a disproportionately large head. Intelligence was feeble. At the age of 6 she had a suppurating gland in the neck, which discharged for about eight months. In November 1878 she had whooping-cough, lasting for three months. In Jan. 1879 she had enlarged cervical glands on both sides, but no suppuration. About this time her conduct became peculiar and absent. She had failure of memory and bad temper. Headaches now occurred, at first once or twice daily, but becoming more and more frequent, and finally constant, with occasional acute exacerbations at night. She was prone to outbursts of passion on slight provocation. Sleep was bad and broken. Her appetite was very good, and remained so almost till death. In February, frequent vomiting commenced, especially on coming into bright sunlight. The bowels were fairly regular. Movements, sight, etc., were good. She was dull and listless, except on the occurrence of headache, when movements were excited. At the end of March, convulsions appeared, and afterwards continued a prominent symptom, occurring once every three or four days. They occurred if the child fell into a passion or was agitated; then she shrieked out, became blue in the face, fell down, and convulsions began on each side of the face in the region of the portio dura. Consciousness was lost. The eyeballs were in a strained position towards one or other side (there was no constancy in this), and exhibited tremulous nystagmus-like movements. Next, both arms were convulsed, and then the legs. During this time (two to three minutes) there was inspiratory spasm with swelling of the neck, and cyanosis, now and then interrupted by a prolonged snoring inspiration. For about half an hour she remained unconscious, during which time similar convulsive attacks recurred at intervals; then there was a gradual return of consciousness. Mental weakness now progressed rapidly. She was not under treatment till April, when Dr. Huguenin firs saw her.

On April 6, 1879, her condition was as follows. She was a slightly built child, with very large head, but without real deformity. The sutures were all closed; the bones seemed very solid and thick; the forehead was prominent; the expression was silly; she had a tendency to sob and scream; she was unwilling to leave the sitting position. There were enlarged glands in the neck, and also in the right supraclavicular fossa. When spoken to, she seemed to understand, but gave no answer; yet she could speak quite well at times. There was no paralysis, but the movements of all the muscles were weak. There was no hemiparesis; no strabismus nor ptosis. The pupils were equal, of medium size, and active. The portio dura and hypoglossal nerve were normal. Deglutition, etc., were normal. Reflex action was very active all over the body. There were no vaso-motor or trophic disturbances; no anæsthesia anywhere. She screamed violently on slight interference. Sight, hearing, and taste were perfect. Smell was doubtful. On ophthalmoscopic examination, both discs were found normal; no swelling. The rest of the fundus was normal. The heart, lungs, and abdominal viscera were apparently sound. The urine contained no albumen nor sugar. The diagnosis was, hydrocephalus from unknown cause. The treatment consisted of iodide of potassium and syrup of the iodide of iron.

Headache now became less severe, and she was more affable. Intelligence improved. On April 27th, a second ophthalmoscopic examination showed no engorgement (Stauungs-papilla) on either side; but both discs were red and elevated; their outline was indistinct (optic neuritis). During part of May, improvement was most satisfactory. The convulsions occurred about once every ten days, and were fewer at a time.

In the middle of May, her mother noticed that she began to hold her head constantly somewhat awry, *e.g.*, she always looked at her toys and picture-book as if 'round the corner'. On May 20, there was found to be hemiopia, and failure of the right half of both retinæ, so that she always carried her head towards the left. This symptom remained constant till death. From May 20 onwards, the headaches became worse, with sleeplessness and much vomiting. There was no constipation. The appetite was good. Convulsions increased again, and, at the end of May, occurred almost daily. Intelligence again failed rapidly. There was no failure of movement or sensation except the hemiopia. In June, she died of bronchopneumonia.

A *post mortem* examination of the head only was allowed. The bones of the skull were thick. The membranes on the convexity of the brain were healthy. The brain was large and bulky, with slight congestion of the fine vessels of the pia mater, especially the veins. The longitudinal sinus contained a fresh clot. On the outside of the brain two tumours were seen: one at the apex of the left frontal lobe, the other at the apex of the right occipital lobe. The base was normal. All the nerves were intact. Round the optic commissure, extending to the anterior edge of the pons Varolii, and in both Sylvian fissures, there was slight thickening of the pia mater, of a chronic inflammatory nature. No swellings were found on the course of the optic nerves. The cerebellum and medulla oblongata externally were healthy. All the ventricles were much enlarged; the choroidal plexus was firm and bulky; there were granulations on the

ependyma at the head of the corpus striatum and in the ventricle. One tumour lay at the apex of the left frontal lobe only on the convexity, the concavity remained sound. It occupied the lower aspect of the bend of the second frontal convolution; the first and third frontal convolutions were intact. At one part it was nearly an inch long and 0.7 inch broad, and had caused complete disappearance of the cortical substance; a part of the white substance underneath was also gone. It extended inwards for nearly one-third of an inch. The surrounding white and grey matter, for about 0.12 inch, was of a diffuse red colour, softened and studded with very small hæmorrhages, not quite so large as pin-heads. Over it was an area of yellow necrosis, about 0.08 inch broad. The tumour was caseous tubercle. The second tumour lay on the mesial aspect of the right occipital apex, projecting a little above the level of the brain: it was attached to the pia mater, and there were several delicate adhesions between it and the dura mater. Its length was 1.2 inch; height, 1.2 inch; thickness, nearly an inch. It therefore was evident that the greater part of the tumour was embedded in the cerebral substance. It was situated directly in the calcarine fissure, the sides of which it had pushed apart. Its surface was yellowish, with some flattened knobby outgrowths. The occipital fossa was quite unaffected. The tumour extended into the cerebral substance for about 0.8 inch. At its circumference was a softened zone of a yellowish-red colour, in which were a considerable number of very small punctate hæmorrhages. The tumour was non-vascular and caseous.

In answer to the question as to which of these tumours caused the hemiopia, Huguenin points out that the frontal one could have nothing to do with it; since (1) if a lesion do not implicate the immediate neighbourhood of the central convolution, it does not affect motion; (2) such lesions never affect sensation. So in this case, this frontal lesion had caused no symptoms, motor or sensory. Again, many observations have shown the connection between occipital lesions and hemiopia. It is interesting to note that in the above case the tumour exactly destroyed the centre of the region in which the bands of Vicq d'Azyr occur in the cortex. Has not this defined cortical region, then, probably a marked relation with the sense of sight?

Case II (Haab). A woman, aged 61, in Feb. 1878 had endocarditis and pericarditis. Shortly afterwards, she had paresis of the left arm and leg, most probably in consequence of an embolism. She soon recovered from the hemiplegia. In July she could walk quite well, and do light work with the left arm. Any prolonged work with the left hand, however, now caused pain in the left arm and palpitation of the heart. The chief symptom was, that she could not see objects towards the left with the left eye. On examination, Dr. Haab found intelligence good. The movements of the left arm and leg were well performed, but rather more difficult than those with the right. There was no true paresis anywhere. The ocular muscles acted normally. The pupils were equal, below medium size, and reacted well. The sensibility of the skin was normal. Hearing and smell were unaffected. The left half of the field of vision was wanting on both sides, but the patient (as usual) had only noticed the defect in the right eye. The boundary of the defect on each side was straight and perpendicular, passing through the fixation point. V=1 H 2D with each eye. Perception of colours in the retained half of the visual field was normal on both sides, and the colour-fields were limited towards the left of the above-mentioned vertical line, and extended right up to it. Ophthalmoscopic examination revealed nothing remarkable in the fundus. The discs had a senile grey look and shallow physiological excavation. The vessels showed nothing abnormal. This condition remained the same till the patient's death, a year later.

The diagnosis was localised embolic softening in the right hemisphere, probably in the posterior part of the optic thalamus, or further back towards the cortex.

In July 1879 she died from mitral insufficiency. A *post mortem* examination was made sixteen hours after death. On removing the calvaria, the posterior angle of the right occipital lobe was seen to be somewhat depressed; and here the pia mater was stretched loosely over a collection of clear serous fluid. This cystoid spot of softening appeared small viewed from above and laterally; the most posterior angle of the lobe was alone deficient, so that it appeared curtailed by about one-fifth of an inch. On more exact examination, the softening was seen to have destroyed a tolerably large area of the brain-cortex on the mesial side of the occipital lobe, and here the defect included the whole neighbourhood of the calcarine fissure for more than an inch and a half. In front, it stopped at a distance of two and a third inches from the apex of the lobe. The destruction was confined chiefly to the cortex, so that, between the cystoid softening and the closely adjacent posterior cornu, there was only found a fairly thick layer of white substance. The posterior cornu did not communicate with the cyst. Of the calcarine fissure there was nothing visible; it was obliterated along with the gyri bounding it. In a vertical direction (perpendicular to the calcarine fissure), the affected area had a breadth of 0.8 to 1.2 inch. It was a degeneration, viz., atrophy following an embolism, with a so-called 'cyst of softening'. No other pathological changes were seen in the brain. The regions of the thalamus, corpora quadrigemina, corpus geniculatum externum, and the optic tract, were quite intact on both sides. There was no lesion found to account for the temporary hemiparesis, so that it must be presumed that disturbances in circulation in the motor region of the right hemisphere were the cause of this. Microscopical examination of the optic nerves, commissure, and tracts showed no atrophy. The chiasma was cut specially in a series of successive transverse sections.

R. Marcus Gunn.

HILLER ON THE HYPODERMIC ADMINISTRATION OF CATHARTICS.

Dr. A. Hiller of Berlin (*Zeit. für Klin. Med.*, Band iv), has reviewed the experiments that have heretofore been made in the way of injecting into the subcutaneous connective tissue medicine intended to produce catharsis, and has at the same time somewhat extended the list. He has, for a number of years, upon merely theoretical grounds, expressed his belief in the possibility of producing such effects; and has maintained the opinion that it was only a question of time when appropriate remedies would be found for this purpose. But the discovery of a suitable remedy has until now evaded all pharmaceutical research; and among all those that have been proposed, there is not one that answers all the requirements of a hypodermic cathartic remedy.

Aloin, which has been the most universally used in experiments of this kind, gives, according to the manner of administration, a varied action. Hiller observed, after the injection of from 15 centigrammes to 2 decigrammes (2¼ to 3 grains), a copious discharge in from four to six hours after administration. In a brief review of experiments by Kohn, not referred to by the author, aloin was administered subcutaneously, in the dose of 8 decigrammes, without producing catharsis.

The colocynthum purum prepared by Merck of Darmstadt, a light, greyish-yellow powder of a bitter taste, administered internally or subcutaneously in the dose of 5 to 10 milligrammes (.075 to .15 grain), produces watery stools with moderate tormina. A solution in alcohol, glycerine, and water, is the best adapted to hypodermic medication. The injection is very painful. There is also a resinoid substance called citrullin, extracted from the colocynth fruit, insoluble in water, which, when taken internally in the dose of 5 milligrammes to 1 centigramme, or if administered hypodermically in the same dose, dissolved in equal parts of alcohol, water, and glycerine, will produce the desired effect; but it produces also severe pain, accompanied by œdema and redness of the skin. The action of colocynth and citrullin is also manifested by the officinal extract of colocynth. A dose of 15 milligrammes to 6 centigrammes injected under the skin, produces diarrhœic evacuations, but also pain and œdema.

The substances thus far named, together with a small quantity of fluid, produce diarrhœa in from a half to one hour.

Experiments with cathartinic acid from senna show that this remedy, rather freely soluble in water, will produce catharsis if taken internally in the dose of 2 or 3 decigrammes dissolved in water and glycerine. Administered subcutaneously, it produces painful inflammation of the skin, with a tendency to the formation of sloughs. If, however, the solution be made alkaline, this effect is not produced; and furthermore, 1 decigramme will occasion copious evacuations in eight to twelve hours.

The extract of elaterium, as well as the pure elaterin, is too often ineffective, and frequently it is for other reasons inapplicable.

Leptandrin, a glucocide of leptandra virginiana, internally, in the dose of 5 decigrammes, gently stimulates peristalsis without producing diarrhœa.

Euonymin, the glucocide of euonymus atropurpurea, internally (1 to 2 decigrammes) acts mildly. In obstinate constipation, a dose of 3 decigrammes or more will be found effective.

Baptisin, a glucocide of baptisia tinctoria, has to be given internally in the dose of 3 or 4 decigrammes, to produce mild catharsis in four or six hours.

The three latter remedies have been for a number of years employed in America, and their therapeutical value has well studied.

ERINGER ON THE PHYSIOLOGY AND PATHOLOGY OF THE STOMACH.

DR. LUDWIG ERINGER (*Deutsch. Arch. für Klin. Med.*, Band xxix, Heft 5 and 6) has made a large number of experiments on himself and on many other persons, to decide at what time during the state of digestion free hydrochloric acid appears in the gastric juice. He found that the latter contained an excess of free hydrochloric acid during the third and fourth hours after an abundant and rich meal.

Examination of the gastric juice, in a case of typhoid fever, elicited the fact that the masses vomited during the period of the highest fever contained a large amount of free hydrochloric acid. As the results so far gained in this direction have been contradictory, this new addition to the chemistry of the digestion of persons suffering from high fever is rather important.

Examinations into the amyloid degeneration of the stomach showed, in eleven cases, that the vessels of the walls of the organ were also affected, more or less, by the same process of degeneration; frequently the muscular coat, especially the muscularis mucosæ, often a part of the areolar tissue of the mucous membrane and the glandular structure, participated in the same morbid alteration.

Dilatation of the stomach is brought by the author into causal connection with the coexisting considerable amyloid degeneration of the muscular walls of the organ. If the latter no longer possess the tonus which is necessary to enable them to carry the weight of the contents of the stomach, passive dilatation, its degree depending upon the amount of the contents, will temporarily ensue, and gradually change into permanent dilatation, as the peristaltic movement becomes less and less sufficient for the locomotion of the contents of the organ.

Concerning the development of ulceration in cases of amyloid degeneration, the fact was noted, that it is not the amyloid parts which are attacked by this ulceration, but those parts which are not suffering from amyloid degeneration, but which, not being provided sufficiently with blood from the degenerated vessels, fall a victim to the destroying influence of the gastric juice, which only an ample supply of alkaline blood can prevent. The physiological function of the stomach in cases of amyloid degeneration of the vessels of the mucous membrane of the organ undergoes this change, as proved by the frequently repeated examination of the contents of the organ in five such cases; that the gastric juice, at the proper time, exhibits a want of free hydrochloric acid.

Regarding the symptoms during life by which the physician, under certain circumstances, may be able to recognise this participation of the stomach in the amyloid degeneration, Dr. Frerichs first drew attention to the fact that in the beginning the appetite vanishes, and, from time to time, vomiting takes place, while the tongue is not coated. But Dr. Eringer contends that these symptoms are so little definite, and subject to such diverse explanations, that they can hardly be considered as possessing any diagnostic value. According to Dr. Eringer's experience, amyloid degeneration of the vessels of the stomach by itself does not exert any influence at all on the appetite. Vomiting, with clean tongue, absence of tenderness in the epigastric region, and amyloid degeneration in other organs, are the symptoms mainly to be relied upon. The favourable action of acids, and especially of hydrochloric acid, in cases of typhoid fever, seems to receive an explanation by the facts above mentioned; and the latter give the hint not to administer acids, for the purpose of assisting digestion, immediately after a meal, but about two hours after the same.

MÜLLER ON THE OCCURRENCE OF SEPTIC ACTION IN DIABETES.

Dr. W. Müller (*Ærzt. Intelligenzblatt*, 1882, No. 41) draws attention to this subject in an interesting and partly historical paper. That wounds occurring in diabetic patients are prone to resist treatment, and to be followed by phlegmonous inflammation, has long been known. The frequent occurrence of gangrene and unhealthy inflammatory processes in such cases was first observed by a French military surgeon, Marchal de Calvi, in 1853; and, ten years later, he published a series of 133 illustrative cases. He made the observation that in such cases it was generally the otherwise healthy and robust-looking patients, and especially those of middle age, who were most frequently affected in this way.

Nélaton and Verneuil, and, later, Peyrot, have also recorded corroborative cases. In Germany, Wagner in 1857, and Griesinger in 1859, have in turn discussed the subject; and, more recently, a work by Dr. Roser has appeared, in which he states his conviction that the development of inflammatory processes, in the course of diabetes, is due wholly and solely to the altered condition of the blood. He believes the gangrenous and phlegmonous processes to be entirely different from those of the non-diabetic, being altogether independent of the possible entry of septic germs from without, and hence antiseptic treatment is not sufficient alone to ward off septic inflammation. Only when coupled with strict antidiabetic diet is it of any real value. From this point of view, diabetes forms at the present time a blank in the accepted theories of septic action.

Other writers, as Kraske and König, believe that the infection takes place from without, but that the condition of the blood in diabetes is especially favourable to the further development of the morbid processes, and favourable to such an extent that antiseptic treatment is often of no avail.

Dr. Müller brings together a series of cases, for the most part recorded by the writers already mentioned, all proving the proneness of phlegmonous inflammation and gangrene to occur in diabetic patients, and to resist ordinary treatment in such cases, and a few illustrating the possibility of obtaining good results by strict adherence to the rules of antidiabetic diet.

One case, recorded by Rosenberger, deserves attention. The patient, aged 61, had been under treatment for some years for diabetes, with alternate relief and relapse. An operation for removal of a cancerous breast was performed with the utmost attention to antiseptic precautions. The wound healed well, and the precautions were somewhat relaxed. Shortly afterwards, a violent septic fever set in, and proved fatal, without any evidence of alteration in the healthy condition of the healed wound. No *post mortem* examination was, however, made.

Out of twelve cases recorded, only three occurred in women. Griesinger's statistics also show that nearly three-fourths of diabetic patients are males.

Dr. Müller seeks at some length for the explanation of the phenomena in Rosenberger's case, reviewing in turn (1) the possibility of infection taking place through the healing tissues of a healthy wound; (2) the possibility of a delay, from any cause, of the ordinary febrile disturbance following a wound; (3) the possibility of the conversion of the ordinary micro-organisms, which many writers believe to pervade all the fluids of the body, into germs capable of exciting true septic inflammation by the influence upon them of the altered condition of the blood.

The first two propositions he negatives as unlikely, the third he regards as possible. It would appear probable that certain forms of bacteria, which have entered the body by whatever channels from without, do at times find the favourable conditions in some one or more organs for their development and propagation, independently of any known dyscrasia of the blood. May it not also be possible that the diabetic condition of the blood may afford the favourable conditions necessary for the development into septic germs of the otherwise harmless micro-organisms of the body? To this question Dr. Müller finds an affirmative answer in the spontaneous occurrence of carbuncles, boils, and gangrene in the ordinary course of diabetes. The results of treatment also would seem clearly to indicate that the evil must be sought for in the blood itself. In a large number of cases the enforcement of strict antidiabetic rules of diet was followed by improvement, and this was so marked in the cases observed by him, that Roser appears to have regarded the diabetic treatment as far more conducive to the healing of the wound than was the antiseptic treatment of the wound itself.

The details of Rosenberger's case suggest once more the question whether operations ought to be undertaken upon diabetic patients or not. The opinions of Marchal, Verneuil, and Roser may be accepted in answer. They all agree that operations should never be undertaken in such cases unless they are absolutely necessary, and only then if some improvement has been found to follow upon a course of dietetic treatment, and if the patient be otherwise in fair health. Careful dieting, therefore, should be observed both before and after the operation, and, although their results would appear at times disappointing, antiseptic precautions should be rigidly observed.

E. Clifford Beale, M.B.

NUSSBAUM ON A SIMPLE AND SUCCESSFUL MEANS OF TREATING WRITER'S CRAMP.

A new method of treating this most troublesome of disorders is detailed by Professor von Nussbaum in the *Arztliches Intelligenzblatt*, No. 39, 1882. Occurring only when the affected muscles are called into action, the cramp is unmistakably due to spastic contraction of a certain set of muscles whilst their antagonists remain in a state of abnormal feebleness. Such a condition is not of necessity acquired by overuse of muscles, but in many cases is clearly congenital and inherited. For its relief various mechanical contrivances have been unsuccessfully employed, and tenotomy, myotomy, and nerve-stretching have been performed with no better results.

Long-continued tonic treatment, with almost complete rest to the affected hand, electricity, and certain gymnastic exercises, have been of some service. A well-known writing master in Frankfort has succeeded in carrying out a series of manipulations upon the affected limbs, which have been followed by really successful cures; but, although his practice has been well investigated by various surgeons, others have been unable to obtain such good results, which must therefore be attributed to individual skill. A method, therefore, which although made public, cannot be imparted to others in such a manner as to be successful in their hands, remains a dead letter as far as its scientific value is concerned.

'On closer investigation it became more and more evident to me that, be the cause of the affection what it might, the normal antagonism of the muscles was pathologically altered, a spastic contraction of the flexors and adductors being always associated with weakness of the extensors and abductors. It occurred to me that, if one could construct such a penholder as could be manipulated by the extensors and abductors instead of by the flexors and adductors, the cramp could not possibly occur, and thus the act of writing would prove the best means of curing a writer's cramp.'

Acting upon this idea, Professor von Nussbaum constructed a kind of 'bracelet' of gutta-percha, of an irregularly oval shape and about three inches and a half in diameter, just wide enough to admit all the fingers. Thrusting the thumb and first three fingers into this bracelet, he found that strong extension of the enclosed fingers and abduction of the thumb were necessary to keep it fixed in its place. To the upper surface of the bracelet a penholder was attached by a screw, and adjusted so that the point of the pen should lie in a convenient position for writing when the hand was laid flat upon the table.

The more powerfully the movements of extension and abduction are employed, the more firmly will the bracelet be held, and, as a consequence, the better will be the writing. The form of the bracelet admits of variation, the object being to give employment as fully as possible to those muscles which, in the writer's cramp, remain weak and inactive, and thus to restore a normal antagonism between the two sets of muscles.

In order to fully test the value of his invention, Professor Nussbaum obtained a large number of cases by means of advertisement of a 'gratis cure' in local newspapers. Selecting cases of undoubted writers' cramp, he found that improvement in the writing power took place at once, and he consequently supplied each of his patients with a suitable bracelet for the purpose of practising in private.

On the second day he received a four-sided letter from a patient who had not written so much for many years, and who, with an ordinary penholder, was unable to write his own name legibly. All the patients agreed in stating that no cramp whatever supervened whilst using the bracelet, but very many described the occurrence of an extremely agreeable sensation in the hand after a few moments, and especially in those places which had before been the seat of the chief discomfort.

The continued use of the bracelet for many weeks is recommended; and, although it may be of itself sufficient to cure the disorder, it is nevertheless probable that the use of electricity, massage of the hand and arms, etc., at the same time, would hasten the successful issue. E. CLIFFORD BEALE, M.B.

ZAUFAL ON THE IMPORTANCE OF OPHTHALMOSCOPIC EXAMINATION IN DISEASES OF THE EAR.

AT a meeting lately held at Prague (*Prager Med. Woch.*, 1881, No. 45; and *Annales des Maladies de l'Oreille, du Larynx*, etc., December 1881), Professor Zaufal drew attention to the importance of examining the eyes opthalmoscopically in diseases of the ear. The subject has already been noticed by others, especially Knapp, Moos, Kipp, and Allbutt, who have showed the relation which subsists between the condition of the retina and the various affections of the organ of hearing; but so far the question has not received the attention it has deserved. After entering into details with regard to the manner in which he conducted his investigations, the author deduces the following conclusions.

1. Ophthalmoscopic examination should form an integral part of the clinical study of the auditory apparatus. It should be practised in affections of the membrana tympani, especially in acute or chronic suppurative otitis at all stages of the disease, in spite of the absence of intracranial symptoms. Further, as it is shown by experience that intracranial disorders may be occasioned by affections of the meatus, in these cases also it is wise to examine the eyes with the ophthalmoscope.

2. In the instances in which examination of the ear proves negative to account for the existence of difficulty of hearing, or of deafness, subjective noises, vertigo, etc., the use of the ophthalmoscope might clear up the diagnosis; for it would then be possible to determine whether the disease was localised to the labyrinth or was intracranial in character, or whether it involved both of these regions simultaneously. (Knapp recommends the use of the ophthalmoscope in deafness so-called.)

3. The use of the ophthalmoscope is indispensable in connection with the question of applying the trephine to the mastoid apophysis. It may reveal the extension of the inflammation to the intracranial cavity (meningitis, thrombosis of the sinuses, etc.) before even the appearances of any acute symptoms, subjective or otherwise. When the meningitic symptoms increase in intensity, the fundus of the eye also exhibits an increase in its morbid appearances; these appearances, however, decline as the intracranial symptoms abate.

4. The influence of the trephine upon the functions of the brain can be appreciated, especially after the observance of the improvement in the optic disc and the retina which follows the operation.

5. When inflammation of the middle ear involves the meninges of the brain, it frequently happens that the eye of the same side is the first to exhibit change; but generally both eyes are attacked at the same time, in which case the one on the opposite side shows the presence of the changes most unmistakably.

6. After the application of the trephine the improvement should be most marked in the eye on the diseased side; but a simultaneous improvement is also observed in the other eye.

7. Up to the present time, at the clinique at Prague, on each occasion in which suppuration of the middle ear occurred, complicated either with meningitis or thrombosis of the venous sinuses, ophthalmoscopic examination, when it was practised, demonstrated the presence of marked lesions in the optic fundus (cupping of the disc with or without neuroretinitis); so much so, that this form of meningitis appears to be distinguished from other forms, in that it produces almost always changes in the fundus of the eye. As to the cause of this fact, the author is not in a position to hazard an explanation.

In order to illustrate the value of ophthalmoscopic examination in relation to the question of trephining the mastoid apophysis, the author cites the following case. A young student, aged sixteen, suffered for nine months from suppuration of the middle ear, with perforation of the membrana tympani and enlargement of the glands of the neck. The disease resisted all treatment, until the health of the patient began to materially decline. Anorexia and nocturnal

rise of temperature supervened, without, however, any complaint of pain. In the course of time, he was attacked with occasional vertigo; and he noticed that, whilst his ear was being syringed, the giddiness would always come on. The mastoid apophysis was, on external examination, intact; it was tender neither on pressure nor to percussion; but when percussion was practised on it or upon the left side of the cranium each blow produced slight vertigo. Ophthalmoscopic examination by Dr. Schenkel gave the following result. On both sides, the optic fundus was of a deeper colour than normal, being of a dark red hue. The redness was more marked in the neighbourhood of the disc, and extended to its inner half. The arteries did not exhibit any obvious alteration, either in diameter or in course; while the veins, on the contrary, were very dilated, deeper in colour, and tortuous. The discs were not clearly defined, their internal segment was intensely injected. Upon the right disc, near the point of emergence of the central vessels, a hæmorrhage had occurred covering the whole of its centre. The diagnosis was, binocular venous hyperæmia.

It having thus been shown that meningitis was about to supervene, if it had not already commenced, on the 14th of June the trephine was applied to the mastoid apophysis. The next day, frequent vomiting (chloroform) occurred, but the vertigo during the syringing and on percussion had vanished. The patient expressed himself as feeling better; he recovered his appetite, was able to sleep, and the pulse fell to normal. On examining the eyes four days after the operation, the internal aspect of the discs was still injected, but the venous distention had unmistakably declined. The hæmorrhage upon the right disc had undergone marked diminution. The condition of the patient being satisfactory, he was allowed to take exercise out of doors. On the 22nd, the temperature rose rapidly to 41 deg. Cent. (105.8 Fahr.) The eyes did not exhibit, on examination, any change, and this being so, it was possible to exclude any intracranial affection, as meningitis, abscess of the brain, or venous thrombosis. The constitutional disturbance disappeared in a short time, being probably of a septic nature, and the patient completely recovered his health. When the eyes were last examined, the fundus of each was normal.

ROTATION OF THE VERTEBRÆ IN LATERAL CURVATURE OF THE SPINE.

In cases of lateral curvature, the rotation of the vertebræ upon their vertical axes, so that their bodies turn in the direction of the convexity of the curve, and their spinous processes in the direction of the concavity, is a fact which has been recognised for many years. Dr. Dods* has the credit of being the first to describe this condition; and since his time the majority of writers upon lateral curvature have referred to it, and a variety of opinions as to its cause have been advanced.

Rotation has been attributed to the serratus magnus muscle upon the convex side of a dorsal curve, acting upon the ribs as upon levers, the fulcrum of each rib being the transverse process of the corresponding vertebra. This hypothesis might be disproved in several ways; but it will suffice to remark that rotation occurs as completely in the lumbar, where there are no ribs and no serratus magnus muscle, as it does in the dorsal region.

Another theory is that which attributes rotation to the unopposed action of the erectores spinæ muscles upon the convex side, pulling the ribs and the transverse processes backwards; but, even if we could believe that such an effect were likely to be produced in the dorsal region, it could not occur in the lower lumbar or sacral region.

Mr. Alexander Shaw* described rotation as the result of the changes which are produced in the articulating processes by lateral pressure. He states that by pressure, the oblique processes of the concave side are shortened and flattened by absorption; while, owing to the processes on the convex side escaping compression, they 'preserve their normal shape and size, and diverge from each other. The influence which this contrast in the rate of consumption of the substance of the vertebræ on the two sides may have in causing contortion to be combined with lateral incurvation, will be apparent when we take into view the relative position of the processes to the central axis of the spine. They are placed postero-laterally in the vertebræ. Consequently, at the same time that the column falls sideways, a rotatory movement in a partially horizontal plane will take place upon the oblique processes of the concave side as centres or pivots; and the vertebræ will, therefore, perform an imperfect gyration with their sides, which have undergone the chief destruction, pointing forwards.'

Mr. Adams† remarks, 'The purely mechanical explanation given by Mr. A. Shaw of the mode in which rotation of the vertebræ takes place, will, I believe, be found correct.'

This theory has been severely criticised. Herman Meyer‡ ('Die Mechanik der Scoliosis', *Virchow's Archiv*, vol. 35) opposed it upon the grounds that (1) the articular processes have no definite or prescribed range of motion; (2) spinal torsion may be met with in all parts of the vertebral column, although the oblique processes differ in shape and position; (3) torsion prevails at an age when the oblique processes are not fully developed.

Meyer performed experiments upon a number of dead bodies. In fully developed spines of adults, he produced curvature without torsion. In fœtuses and children, rotation accompanied the artificial production of lateral curvature. In a girl aged fourteen the torsion produced was moderate, until the anterior longitudinal ligament had been dissected off, when torsion became perfect. In a girl of sixteen, the artificially produced lateral curvature was without torsion, until the anterior ligament was divided. Meyer thought that rotation was produced by the action of the ligamenta subflava.

Dr. H. Dick§ considered that the rotation is the mechanical consequence of the bending of the column. 'The spine in some respects resembles a strong elastic stick or column, which, if pressed at both extremities more strongly than it can bear, forms a bow, and in that condition will not bend backwards or forwards, but will rotate at the central points of the bow.'

A work has lately been published by Dr. C. Nicoladoni, of Stuttgart, entitled *Die Torsion*

* *Pathological Observations on the Rotated or Contorted Spine, commonly called Lateral Curvature.* Lond., 1824.

* *A System of Surgery*, edited by T. Holmes, 2nd edit., vol. v, p. 862.

† *Curvature of the Spine.* Churchill's 2nd edit., 1882, p. 142.

‡ The reporter has quoted the translation which occurs in Louis Bauer's Lectures on *Orthopædic Surgery.* New York, 1868.

§ *Medical Times and Gazette*, Aug. 1864.

der Skoliotischen Wirbelsäule, which advances an extraordinary theory of this peculiar twisting of the vertebræ. He describes the dissections of a large number of spines affected with lateral curvature, and he states that 'the so-called torsion of the scoliotic vertebral column is only apparent, and is rather to be regarded as an optical general impression of the general want of symmetry in the individual scoliotic vertebral bodies.' The reason of the twisted appearance is to be sought for in the successive increase and diminution of partial development in growth of the vertebral bodies. He arrives at this conclusion, partly because, in the contorted specimens which he has examined, the anterior longitudinal ligament did not pass over the most prominent portions towards the convexity, but maintained a median position. He considers that the condition of the bones which has been described as a rotation, is the result of overgrowth of the body of each vertebra towards the convexity, where it is less pressed upon, and retarded development on the side of the concavity where the pressure is greatest.

There can be no doubt that the unequal pressure causes an unequal development of the vertebræ; but that the so-called rotation is only the appearance of this unequal development can hardly be seriously entertained by anyone who has examined a dissected specimen of a spine with the vertebræ rotated, each bone being twisted in its entirety.

Dr. A. B. Judson (orthopædic surgeon to the out-patient department of the New York Hospital) has advocated a theory which is based upon the fact that the posterior portion of the spine is a part of the parietes, and is thus more or less confined to the median line; whereas the bodies of the vertebræ project into the cavities of the chest and abdomen, and are free to move to right or left. Dr. Judson illustrates the theory by placing a brass rod, having only lateral movement, through the canal of a spinal column, and attaching the spinous processes by elastic cords to a framework. 'To produce lateral curvature of the column, with rotation of the vertebræ, the knob at the summit of the rod is to be depressed. Double curvature, with rotation in each curve, may be produced by confining one of the dorsal vertebræ with the silk check loops, and depressing the knob.'

Dr. Judson is evidently not aware that a similar theory was advanced many years ago by Charles H. Rogers-Harrison, in a work On Deformities of the Spine and Chest, published in London in 1842, who explained rotation in the same way. We will quote the two descriptions.

Dr. Judson (*New York Med. Rec.*, 1882) writes, 'The explanation offered by me is worded as follows. "The distinguishing feature of the explanation of rotation here proposed is the recognition of the fact, heretofore overlooked, so far as I am aware, that the posterior portion of the vertebral column, being a part of the dorsal parieties of the chest and abdomen, is confined in the median plane of the trunk, while the anterior portion of the column, projecting into the thoracic and abdominal cavities, and devoid of lateral attachments, is at liberty to and physiologically does, move to the right and left of the median plane".'

Mr. Rogers-Harrison writes (1842, p. 93), 'To conceive the cause of this extraordinary mode of derangement, it is necessary to imagine that, in a well-marked curvature of the vertebral column continuing to sustain the weight of the body, the vertebræ of the middle of that curvature are, in fact, in the same situation as if they were urged by a direct and horizontal force on the side of the concavity, towards that of the convexity. In this impulsion, the body of the vertebra, isolated in its anterior and lateral parts, experiences no resistance; but the articular processes are powerfully restrained by their reciprocal connection. The transverse processes find, in their articulation with the tuberosities of the ribs, a resistance to their deviation, which would be very weak on the part of an isolated rib, but which becomes considerable by its union with the adjoining ribs. It results from this exposition, that, behind the central part of the dorsal column, there is efficacious resistance to its lateral displacement; that before this central part there is no resistance to that displacement; and consequently the vertebra must necessarily turn on its axis to arrive at the position which observation so frequently presents.'

Although we have shown that this theory—which we believe to be the correct one—was not originated by Dr. Judson, yet it must be acknowledged that we are much indebted to him for re-discovering it, and for bringing it prominently before the profession.

E. NOBLE SMITH.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1. MACKEY.—Salicylate of Soda as a Local Application in Gout. (*Brit. Med. Journ.*, October, p. 718.)
2. KENDALL.—Salicylate of Soda as an external Application in Gout. (*Lancet*, Sept. 1882, p. 513.)
3. FRANCIS.—Chronic Dysentery. (*Practitioner*, Nov. 1882, p. 345.)
4. BRUNTON.—Making Poultices. (*Practitioner*, Oct. 1882.
5. RADCLIFFE. — On Eatables. (*Practitioner*, Oct. 1882.)
6. LEECH.—The Treatment of Dropsy. (*Brit. Med. Journ.*, Oct. 1882, p. 769.)
7. MURRELL.—On Agaric. (*Practitioner*, Nov. 1882, p. 321.)
8. MEREDITH.—Oil of Peppermint in Zona. (*Birmingham Med. Review*, June 1882.)
9. LUYS.—Ergotin in the Treatment of Cerebral Affections. (*L'Encéphale*, June 1882.)
10. HOLLMANN.—Novel Uses for Pepsin. (*Nederland Weekblatt*, No. 18.)
11. BREWER.—Carbonate of Ammonium as a Stimulant. (*Amer. Jour. of Med. Sciences*, July.)
12. OKS.—Curare in Hydrophobia.
13. HASTREITER.—The Treatment of Epilepsy by External Application of Turpentine. (*Wiener Med. Presse.*)
14. WERTNER.—Apomorphia as an Expectorant. (*Prester Med.-Chir. Presse*, Nos. 18 and 19, 1882.)
15. ROSSBACH.—Apomorphia. (*Berlin Klin. Woch.*, No. 27, 1882.)
16. DOMENSKI.—The Alcoholic Treatment of Pneumonia. (*Deutsche Med. Zeitung*, No. 35, 1882.)
17. PAGE.—Chinoidin and Capsicum in Intermittent Fever. (*New York Record*, Oct. 7, 1882.)
18. BROWN-SÉQUARD.—The Anæsthetic Action of Carbonic Acid Gas. (*Le Progrès Méd.*, 1882, No. 45.)
19. Formulæ. (*New Remedies*, Sept.)

1. *Mackey on Salicylate of Soda as a Local Application in Gout.*—In the *Brit. Med. Jour.*, Oct. 1882, p. 718, Dr. Mackey draws attention to the great value of a solution of salicylate of soda applied to rheumatic and gouty joints. The cases given fully bear out its value.

2. *Kendall on Salicylate of Soda as an External Application in Gout.*—Mr. Kendall reports, in the *Lancet*, Sept. 1882, p. 513, that, after employing several lotions with the object of removing gouty excrescences without effect, he tried a solution of salicylate of soda, ten grains to the ounce, to some small deposits in the ear. The chalky matter softened and in four days disappeared, leaving only a small scar as its representative.

3. *Francis on Chronic Dysentery.*—Mr. Francis, in the *Practitioner* for November 1882, p. 345, records a case of chronic dysentery, which had been treated on three successive occasions, resulting in the improvement only, and not the cure, of the disease. Mr. Francis treated his patient on the following principles with perfect success. The diet must be not only bland and nourishing, but capable of ready and quick absorption, as little excrementitious matter as possible being left; for this, strong simple soup, thickened with arrow-root or corn-flour, and after the first few days bread and butter, milk and eggs, may be allowed. The patient must remain in the recumbent position for the first forty-eight hours. In this case, there being no actual lesion of the intestinal tract, but only irritability, deficient tone of the muscular coat, and sluggish liver, a pill was regularly administered containing ipecacuanha, mercury, extract of gentian and opium; the last Mr. Francis believes to be more efficacious in these cases than any other drug. Astringents he has found comparatively useless, except in hæmorrhagic dysentery, from the impossibility of bringing the remedy into direct contact with the diseased part. In all cases early hours and meals must be insisted on; and lastly, the residence should be in a medium climate, and if possible at the seaside.

4. *Brunton on Making Poultices.*—Dr. Lauder Brunton, in the *Practitioner*, Oct. 1882, p. 279, describes how to make a poultice. He points out that in inflammation, heat and cold, though acting in apparently opposite ways, bring about the one result of diminishing pain; the former dilating the capillaries, and so diminishing the painful throbbing by affording a ready outlet for the blood into the veins; the latter lessening the impact of the blood, by diminishing the quantity sent to the inflamed part. In applying a poultice to an inflamed part, it is best done in the ordinary manner, directly to the skin; but in cases of inflammation of internal organs, or where spasm is present without inflammation, the poultice should be applied as hot as possible, while the skin must be protected from scalding. With these two objects in view it is best to enclose the poultice in a flannel-bag measuring about twelve inches by eight; by doing this, the poultice may be applied to the skin boiling hot without burning; the heat gradually increases as the flannel becomes wet, and lasts for a much longer time. One poultice so applied often effects that which a succession of poultices made in the ordinary way fails to do.

5. *Radcliffe on Eatables.*—In the *Practitioner*, Oct. 1882, p. 242, Dr. Radcliffe points out what differences should be made in the diet on a day on which hard physical work is done, as compared with a day of rest. The true change can only be arrived at by considering the differences in the excretions. It is a well-known physiological fact that the quantity of urea excreted under these two conditions is the same; the carbonic acid, however, is increased in quantity proportionate to the amount of exercise taken, so that the ordinary idea of eating more nitrogenous food while doing hard work is not only wrong but actually injurious, by throwing more work on the excretory organs. The true value of the several classes of food is fully discussed; special stress being laid on butter, or oil, as a heat-producer and as a food for nerve-tissue, many persons being found suffering from various chronic disorders of the nervous system who have abstained from the fatty and oily articles of food, and who, when induced to take more of these articles, have invariably improved considerably. Dr. Radcliffe ends a most instructive paper by strongly recommending the *bouillon* of the French *pot-au-feu* for invalids, instead of the ordinary beef-tea or extractum carnis, and gives a receipt in full for its manufacture.

6. *Leech on the Treatment of Dropsy.*—Dr. Leech, in a paper read at the last annual meeting of the British Medical Association, reported in the *British Med. Journal*, Oct. 1882, p. 769, discusses the treatment of cardiac, hepatic, and renal dropsy. Firstly, as to the advisability of removing the fluid, either by mechanical means or by the eliminants of water, such as diaphoretics, diuretics, and purgatives; every case has to be considered as to the real cause of the dropsy, the stage it has reached, and the condition of the patient and his tissues; and without this the more routine treatment by eliminants of water may not only not do any good, but actual harm may result; thus, in the earlier stages of heart-disease with anasarca, diuretics may succeed admirably; later on, as the general health fails, they lose their power, even though there be no evidence of increasing obstruction of the circulation; and at last it may happen that we cannot drain the water from the œdematous tissues, even when they are pricked or tapped. Secondly, as to the modes of elimination; of these, speaking of paracentesis, Dr. Leech believes that, when dropsy is due to a block in the portal vein, tapping is almost necessarily followed by a recurrence; in acute cirrhosis, when the distention causes great discomfort to the patient, this operation does not give even temporary relief, nor has he seen any good result from it in advanced cases of ascites due to cirrhosis, where symptoms of coma had developed. Diuretics rank next to paracentesis, but they can only act when the kidney is functionally competent, and when the tissues are in such a condition as to be able to give up their water. In hepatic dropsy, copaiba, which can be given for a long time with advantage, and caffein are most useful. Digitalis and saline diuretics in cardiac, and diaphoretics are of most value in renal, dropsy.

7. *Murrell on Agaric.*—Dr. Wm. Murrell, in the *Practitioner* for November 1882, p. 321, gives an account of a series of sixty-four cases of phthisis in which he used agaric for the prevention of sweating, in doses varying from three grains to half a drachm. How it acts in these cases is not very clear; it is undoubtedly a good remedy, but not equivalent to others more easily administered, as atropia, picrotoxin, etc. From these cases, Dr. Murrell forms the following conclusions. In small doses, agaric is slow and uncertain in its action, whilst, if given in larger quantities, it is apt to purge violently. The purgative action may be obviated by the addition of Dover's powder; but if we give Dover's powder, we do not want agaric, as the former is one of the best remedies for the night-sweating of phthisis. It is with great difficulty that patients can be induced to take it, agaric being a very light powder, not miscible with water, with a disagreeable very bitter taste; and it is very difficult to 'get down'. Nevertheless, it prevents the sweating effectually, it checks the cough, and, if

not given in too large a dose, promotes sleep. It has, however, not sprung very rapidly into favour, having taken over a hundred years to reach its present position. Richard Neale, M.D.

8. *Meredith on Oil of Peppermint in Zona.*—Dr. Meredith writes (*Birmingham Med. Review*, June 1882):—'I have found the oleum menthæ piperitæ more effective than any other form of anodyne application I have tried in allaying the neuralgic pains often piteously complained of in cases of herpes zoster. These distressing pains—worse in elderly people—are complained of often when the eruption has disappeared; but painting the affected parts over with oleum menthæ piperitæ nearly always affords speedy relief. I have painted the oil over the eruption when it was out in a fresh florid condition, and that with great relief to the patient. The value of this application, in pains of neuralgic character, deserves to be better known than it is.'

9. *Luys on the Use of Ergotin in the Treatment of Cerebral Affections.*—Dr. Luys (*L'Encéphale*, 25th June 1882) points out that he formerly proposed a methodical classification of the disturbances of the faculty of speech, by endeavouring to include in the series of normal phenomena all known varieties of verbal expression. Considered in so far as a purely somatic action, speech may be modified by the following different disturbances. 1. True hemiplegia of speech; transitory aphasia, accompanied by attacks of hemiplegia, may disappear at the end of some months. 2. Verbal ataxy may occur. The patients thus affected use, in answering, one word in place of another, answer in monosyllables in a monotonous fashion, and have no other vocabulary than some articulate sounds, of which they are unable to modify the formula (this is the ordinary classic aphasia). 3. Finally, there are cases in which we meet with subjects more or less neurotic and predisposed, in whom, without the supervention of an hemiplegic attack, there occurs an automatic excellent excitation of the muscles of phonation, in consequence of which the patients utter words which they do not intend to pronounce. The patients are aware of this disposition, and endeavour to regulate their speech; they are not, however, able to succeed, and say the most incoherent things. In this connection, it is curious to remark how these phenomena resemble, feature for feature, similar disturbances of motor power in choreic patients, when they desire to make one movement, and really execute another; and that these movements are so much more incoordinated, according as the patients are more attentive to their execution, and more under the sway of passing emotions. Ergotin seems to have a powerful action in this last very curious series of disturbances of speech. In a case, which serves as the basis of his communication, Dr. Luys gave ergotin in a draught in doses of 30, then 40, and even up to 50 centigrammes during the twenty-four hours. The patient became more mistress of herself; the congested condition of the face, which was very marked, became less so, and the excito-motor sensibility was also diminished. At the end of a fortnight, the medicine having been stopped, the train of morbid symptoms gradually reappeared. At the end of six days, the administration of ergotin was resumed, and a calm again supervened. Finally, the choreiform symptoms having reappeared after a cessation of the remedy, the patient was obliged to continue the use of it in a regular manner. The sedative action of ergotin on the circulation has also been utilised in certain congestive disorders. Associated with chloral, it has been given also with satisfactory results in certain cases of mania, and, in the persistent insomnia of persons the subjects of hallucinations.

10. *Hollmann and Rosenthal on Two Novel Uses for Pepsin.*—Dr. Hollmann (*Nederland Weekblatt*, No. 18, p. 272) has used an aqueous solution of 16 grains of pepsin as an injection into the bladder of a patient who had hæmaturia, and in whom a catheter failed to empty the bladder. A few hours later, a dark, viscid, fœtid fluid readily escaped through the catheter. Dr. Ed. Rosenthal has used an acidulated and concentrated solution of pepsin as a local hourly application to diphtheritic exudations of grave character, and reports that it caused rapid solution of the membrane. The solution was made with a drachm of Jensen's pepsin, twenty drops of chemically pure hydrochloric acid, and enough water to make a fluid ounce.

11. *Brewer on Carbonate of Ammonium as a Stimulant.*—Dr. E. P. Brewer of Norwich, Connecticut, publishes, in the *Amer. Jour. of the Med. Sciences* for July, the results of a series of experiments undertaken for the discovery of the essential nature of the stimulant power of carbonate of ammonium. He declares, as a result of his labours, the belief that 'the action of carbonate of ammonium is not due to the presence of the carbonic acid in combination with the base, but is dependent on the absorption of free ammonia while the salt is chemically combining with the hydrochloric acid of the gastric juice. The instability of the compound, which renders it so susceptible of digestion, is the quality that ranks it above all other ammoniacal salts.' The practical deduction is, that carbonate of ammonium is only serviceable as a stimulant for cases in which the secretion of gastric juice is but slightly affected. This is true of many acute maladies. In graver cases, when gastric digestion is deficient, the value of the remedy is correspondingly lessened. In chronic cases, and in acute cases of long duration, such as the latter stages of fevers, it is practically valueless. Unlike alcohol, it possesses no nutrient properties.

12. *Oks on Curare in Hydrophobia.*— In March last, three Bulgarian peasants were bitten by a mad wolf, and, after a very short time, showed all the symptoms of hydrophobia. One of these men was admitted into the Rasgrad Hospital, under the care of Dr. Oks, who administered 6½ grains of curare (prepared by Fritz of Vienna) subcutaneously, in three days. Death was a foregone conclusion, and the patient died as expected, the drug proving itself no specific against hydrophobia, but acting as a palliative, by relieving the spasm of the glottis. Offenbach and Penzold had previously employed curare, in full doses, for rabies. In Dr. Oks' case prolonged immersion in a hot bath, as recommended by Kowalewski, gave such relief that the patient implored his attendants that it might be repeated.

13. *Hastreiter on the Treatment of Erysipelas by External Application of Turpentine.*—Dr. Hastreiter (*Wien. Med. Presse*) has tried, with great success, a modified form of Lücke's treatment of erysipelas. Lücke recommended that turpentine should be rubbed in. Dr. Hastreiter simply paints the affected part with the oil. The temperature and pulse fall rapidly. The advantages of this method of treatment are these. 1. It is easily applied, without fear of producing irritation. 2. It can be readily carried out by the most unskilled, when prescribed by the surgeon. 3. All other coverings for the affected part, such as wool, flour, or lint, may be dispensed with. 4. No antipyretic medicines need be given. 5. Very often

this treatment averts with success the worst results. 6. At the outset of the disease, it may be cut short by this treatment. 7. The atmosphere of turpentine surrounding the patient will kill specific germs, and prevent extension of the disease.

ALBAN DORAN.

14. *Wertner on Apomorphia as an Expectorant.*—Dr. M. Wertner of Wartberg, says (*Pester Med.-Chir. Presse*, Nos. 18 and 19, 1882) that the tendency to cough in the early stage of bronchitis is removed by the use of small doses of apomorphia, and the excretion mucus progresses without the tormenting cough. Jürgensen has already recommended apomorphia in catarrhal pneumonia, when, by means of wide-spread *râles* and increasing dyspnœa, the expectoration is diagnosed to be great, and this has not been mitigated by the use of other expectorants. Apomorphia has this advantage over other emetics, that it does not produce collapse, unless large doses be used. The author gave a patient, with pneumonia, who threatened suffocation, a mixture of 20 centigrammes (about 3 grains) of apomorphia in 100 cubic centimètres of water, of which 1 tablespoonful was to be taken hourly. The intended prescription was 2 centigrammes; but, by accident, Dr. Wertner ordered ten times that quantity. On visiting the patient next morning, he feared to hear that he was poisoned; but found that he had taken three doses in the first three hours, and, in the fourth hour, two doses. He had a succession of attacks of fainting; difficulty of breathing, and feeling of suffocation were experienced; a great deal of mucus was expectorated, and the patient revived. Dr. Wertner prescribes generally the following mixture: hydrochlorate of apomorphia, 1 to 20 centigrammes; diluted hydrochloric acid, 5 minims; distilled water, 120 grammes; simple syrup, 30 grammes; 1 tablespoonful every one or two hours. Children take half the adult dose. Lewin says that apomorphia, which has become discoloured (green), is as effectual as the colourless. It is to be wished that apomorphia should replace the dangerous tartar emetic in practice of children. The most convenient mode is the hypodermic solution of 5 centigrammes to 10 grammes of water. Jurasz gives the following doses, per age: up to 3 months, .5 to .8 milligramme, under 1 year, .8 to 1.5 milligramme; under 5 years, 1.5 to 3 milligrammes; under 10 years, 3 to 5 milligrammes; beyond 10 years, 5 to 8 milligrammes.

ANGEL MONEY, M.D.

15. *Rossbach on Apomorphia.*—Professor Rossbach (*Berl. Klin. Woch.*, 1882, No. 27) extols the value of hydrochlorate of apomorphia as an expectorant, both in children and in adults. He considers single doses of 5 milligrammes to 1 centigramme (1-14th to 1-7th of a grain) as sufficient, especially in cases of dry irritable cough. The maximum daily dose in the new German Pharmacopœia is fixed at 5 centigrammes, but this is probably lower than necessary, since even a daily dose of .1 gramme (1½ grains), if given in divided doses, rarely produces vomiting. Large doses, however, do not appear so effective as small ones frequently repeated. If employed hypodermically, its effects are very different; even very small quantities will then suffice to produce vomiting. Its influence is essentially exercised upon the nervous centre, and its action as an emetic thus differs from that of tartarated antimony, which has less effect when administered subcutaneously than when given by the mouth. Apomorphia is recommended as an expectorant in phthisis, especially when given in combination with morphia and hydrochloric acid. Hydrochlorate of apomorphia is somewhat difficult to preserve; in an aqueous solution it should be colourless; if an emerald green colour be present when the solution is diluted with 100 parts of water, the preparation is worthless.

16. *Domanski on the Alcoholic Treatment of Pneumonia.*—Dr. Domanski (*Deutsche Med. Zeitung*, 1882, No. 35) discusses this subject shortly and clearly, and lays down the following general maxims as the result of his investigations. 1. In all slight cases of pneumonia, that is, in those cases where the pulse remains strong, and where the temperature does not exceed 104 deg., or the dyspnœa become urgent, he considers that the use of alcohol is contra-indicated, and that it has a tendency to increase the extent of the lung-mischief. 2. It is likewise contra-indicated in cases of powerful, otherwise healthy, subjects, especially those under forty-five years of age. In childhood and youth, also, alcohol appears to be of no service. 3. In all cases where valvular disease of the heart complicates pneumonia it should be avoided. Treatment by alcohol is, however, indicated in such cases as the following. 1. Where there is reason to suspect muscular degeneration of the heart, as in cases of chronic alcoholism, provided always that no valvular disease be present. 2. In all cases where the patient is over fifty years of age, and free from heart-disease. 3. In hypostatic pneumonia. 4. In all cases, except those with valvular heart-disease, after a crisis has been fairly passed. 5. In persons inclined to collapse, without respect to the heart's condition, as being the best means of warding off œdema of the lungs. If this have once set in, however, the further use of alcohol only prolongs life under hopeless conditions. He regards the unlimited and thoughtless treatment of every form of pneumonia with alcohol, not only as a professional error, but as altogether to be repudiated.

E. CLIFFORD BEALE, M.B.

17. *Page on Chinoidin and Capsicum in Intermittent Fever.*—Dr. R. C. M. Page (*New York Med. Record*, October 7, 1882) recommends 10 grains of powdered chinoidin, and 3 grains of capsicum, three times a day, in the treatment of intermittent fever. He thinks that chinoidin is nearly, if not quite, as good as quinine, and, of course, much cheaper. When powdered, it must be mixed with some inert substance, such as althæa, or the particles will soon coalesce again.

18. *Brown-Séquard on the Anæsthetic Action of Carbonic Acid Gas.*—Dr. Brown-Séquard (Soc. de Biologie, *Le Prog. Méd.* 1882, No. 45), having found that a stream of carbonic acid gas produced anæsthesia of the mucous membrane of the larynx, in further experiments found that a stream of gas, directed into the larynx of certain animals during a fit of epilepsy, stopped the fit, and a stream of gas thrown from below upwards on the trachea arrested respiration and put an end to the convulsions of strychnia poisoning. These results suggest that the action is not only local, but is upon the central nervous system. He proposes another experiment, in which part of the mucous membrane will be covered with glycerine, so as to protect it from the direct action of the gas. If that part be anæsthetic, the central nature of the phenomenon will be demonstrated.

R. SAUNDBY, M.D.

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19. *Formulæ.*—The following formulæ are selected from the non-officinal formulary of the Dutch Society for the advancement of pharmacy (*New Remedies*, Sept. 1882).

Trochisci Iodoformi: Troches of Iodoform.—Iodoform, 50 grammes; sugar, in powder, 1,000 grammes; oil of peppermint, 1.5 grammes; tragacanth, powdered, 2.5 grammes; glycerine, 10 grammes; water, q. s. Mix the first four ingredients with the glycerine, and enough water to form a mass, and divide this into 1,000 troches. Each troche contains 0.05 grammes, or nearly three-fourths of a grain of iodoform.

Trochisci Cetrariæ: Troches of Iceland Moss.—Iceland moss sugar; orange-flower water, of each a sprinkling. Make troches, weighing 1 gramme (15½ grains) each. Dry them, and keep them in a stoppered bottle.

Unguentum Leniens: Cold Cream.—Olive-oil, 360 parts; white wax, 36 parts; spermaceti, 60 parts; rose water, 120 parts; tincture of benzoin, 24 parts; oil of rose, 1 part. Melt the first three ingredients together on a water-bath, allow the mixture to become nearly cold, then add to it, under constant stirring, the other three ingredients.

Unguentum Argenti Nitratis Compositum: Compound Nitrate of Silver Ointment.—Nitrate of silver, 1 part; oxide of zinc, 3 parts; balsam of Peru, 3 parts; lard, unsalted, 24 parts. Dissolve the nitrate of silver in a few drops of distilled water, and mix the solution with 12 parts of suet. Then, having mixed the oxide of zinc with the remainder of the suet, incorporate it with the first prepared mixture, and, finally, add the balsam of Peru.

Unguentum Ophthalmicum Compositum: (St. Yves') Compound Eye-Salve.—Red oxide of mercury, 15 parts; oxide of zinc, 6 parts; camphor, 5 parts; oil of almonds, 10 parts; lard, 140 parts; yellow wax, 24 parts. Mix the oxides and the camphor intimately with the oil of almonds, then incorporate with the lard and wax previously melted together, and allowed to cool.

Vinum Amarum Alkalisatum: Alkaline Bitter Wine. (Elixir Aurantiorum Compositum.)—Tincture of orange-peel (1 of orange-peel and 6 alcohol), 2 parts; carbonate of potassium, 1 part; sherry wine, 46 parts; extract of gentian, extract of centaury, lesser, extract of wormwood, extract of carduus benedictus, of each 1 part. Dissolve the carbonate of potassium in the sherry wine; add the extracts, and let the mixture stand for one day, occasionally agitating. Finally, add the tincture of orange-peel.

Vinum Amarum cum Spiritu: Bitter Wine with Alcohol.—Gentian, finely cut, 4 parts; red bark (Indian or Javanese), in coarse powder, 8 parts; orange-peel, deprived of the white layer, and finely cut, 1 part; canella, in coarse powder, 1 part; alcohol, 30 parts; sherry wine, 200 parts. Macerate the solids with the alcohol for twenty-four hours, then add the sherry, macerate for four days, strain, express, and filter.

Vinum Camphoratum: Camphor Wine.—Camphor, in powder, 1 part; acacia, in powder, 1 part; white wine, 44 parts; stronger alcohol, 4 parts. Mix them. It forms a white turbid liquid.

Vinum Cinchonæ: Wine of Cinchona (Laroche's Cinchona Wine.)—Red bark (Javanese or Indian) containing, at least, 6 per cent. of alkaloids, and powdered, 1 part; stronger alcohol, 4 parts; sherry wine, 20 parts; sugar, 16 parts; water, q. s. Macerate the red bark with 20 parts of water, for half an hour, then strain, transfer the residue to a displacement apparatus, and pour upon it the sherry wine. Allow the percolate to pass slowly, and, when the wine has disappeared from the surface, follow it by a mixture of 4 parts of stronger alcohol, and 6 parts of water. Finally, percolate with water until the volume of the whole liquid amounts to 50 parts. Let this stand for a few weeks until it has completely settled, then dissolve it in the sugar, and filter.

Vinum Cinchonæ Ferratum: Wine of Cinchona and Iron. (Laroche's Ferrated Wine of Iron.)—Pyrophosphate of iron, soluble, 2 parts; citric acid, 1 part; water, 3 parts; wine of cinchona, 200 parts. Dissolve the pyrophosphate of iron and the citric acid in the water, add the wine of cinchona, and filter, if necessary.

MEDICINE.

RECENT PAPERS.

1. Charlton.—Sudden Death in the Third Week of Diphtheria. (*Lancet*, Sept. 1882, p. 515.)
2. Byers.—Perforation in Enteric Fever. (*Brit. Med. Journ.*, Nov. 1882, p. 881.)
3. Hunter.—Obstruction of the Bowels. (*Practitioner*, Oct. 1882.)
4. Cockle.—Acute Strangulation of the Ileum. (*Brit. Med. Journ.*, Oct. 1882, p. 785.)
5. Drummond.—Auscultation of the Mouth and Trachea. (*Brit. Med. Journ.*, Oct. 1882, p. 773.)
6. Steavenson.—Spasmodic Asthma. (*Med. Times and Gaz.*, Sept. 1882, p. 392.)
7. Harrison.—Primary Endocarditis. (*Brit. Med Journ.*, Oct. 1882, p. 930.)
8. Pearce.—On Consumption. (*Med. Times and Gaz.*, July 1882, p. 123.)
9. Stewart.—The Origin of Chorea. (*Brit. Med. Journ.*, Nov. 1882, p. 939.)
10. Sturges.—Acute Tuberculosis. (*Lancet*, Sept. 1882, p. 627.)
11. Lasègue.—Abnormal Somnolence. (*Jour. de Méd. et de Chir. Prat.*, tome liii.)
12. Bernard.—Epidemic and Contagious Pneumonia. (*Jour. de Méd. et de Chir. Prat.*, tome liii.)
13. Potain.—Supraclavicular Œdema. (*Le Progrès Méd.*, 1882, No. 42.)
14. Engel.—The Prodromic Stage of Bright's Disease. (*New York Med. Rec.*, Oct. 7.)
15. Saundby.—Migraine with Paralysis of the Third Nerve. (*Lancet*, Sept. 2.)
16. Saundby.—The Albuminuria of Epilepsy. (*Med. Times and Gaz.*, Oct. 14.)
17. Demange.—Loss of Teeth in Tabes Dorsalis. (*Jour. de Méd. et de Chir. Prat.*, tome liii.)
18. See.—Infectious Pneumonia (*L'Union Méd.*, Nos. 76-79, 1882).
19. Meigs.—On Albuminuria. (*Medical News*, October 21.)
20. Grancher.—The State of the Lung in Pleurisy. (*L'Union Méd.*)
21. Flint.—Gout and Lead-Poisoning. (*Bost. Med. and Surg. Journ.*, Oct. 19, 1882.)
22. Roques.—Symmetrical Gangrene in Bright's Disease. (*Gaz. Hebd. de Méd.*, No. 44, 1882.)
23. Barr.—Reduplication of the Cardiac Sounds. (*Liverpool Med.-Chir. Journ.*, July 1882.)

1. *Charlton on Sudden Death in the Third Week of Diphtheria.*—Mr. Charlton gives the outline of a case of sudden death, occurring in diphtheria, in the *Lancet*, Sept. 1882, p. 515. There was nothing extraordinary about the case; it was treated with large doses of chlorate of potash and perchloride of iron, warm poultices externally, and good diet. On the second day, the patient being cyanotic, tracheotomy was performed, with immediate good result; after which, recovery was uninterrupted till three weeks

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after the commencement of the illness, when the child, while at dinner, suddenly fell and was taken up dead. Mr. Charlton asks for an explanation of this fatal incident.

2. *Byers on Perforation in Enteric Fever.*—Dr. Byers, in a paper read at the annual meeting of the British Medical Association at Worcester (*British Med. Journal*, November 1882, p. 881), calls attention to the great frequency of perforation in typhoid fever, it being found on the average in one-fifth of the fatal cases. He has found that this may be dreaded in all cases in which there are any signs of severe or deep ulceration of the bowel; such are, the type of the disease being unusually severe, extreme tympanites or constipation; a single deep ulcer paralysing the action of the bowel and allowing an enormous accumulation of flatus, or causing constipation; continued elevation of temperature after the third week; severe tremor; protracted headache in the early stages; and lastly, the persistence of the *tâche cérébrale* during convalescence. A case terminating fatally from perforation is cited, illustrating most of these points. From the great fatality of this complication, Dr. Byers strongly urges, when one or more of the above symptoms are present, that the following precautionary measures should be adopted. The patient is to be kept perfectly quiet in the dorsal recumbent position. All food is to be given in the liquid form, and purgatives are not on any account to be administered, and opium must be given regularly; this places the ulcers in a better condition for healing, and the chance of rupture of their floors, from sudden movements of the intestines, is minimised.

3. *Hunter on Obstruction of the Bowels.*—Dr. Dickson Hunter records in the *Practitioner*, October 1882, the case of a man, aged 50, who came under observation two days after the onset of the disease. The abdomen was greatly distended, so much so that he could neither sit up nor lie down. The other usual signs of obstruction were present. An attempt was made to pass up by the rectum first a long tube, and then a No. 10 catheter, but they each met with an obstruction that was not to be overcome. The respiration becoming greatly embarrassed, it was determined to puncture the abdomen; this was done in the left nipple-line three inches below the edge of the ribs, where there was a particularly prominent looking part. A large quantity of flatus escaped. The following day, as the distension had re-accumulated, chloroform was administered, and Dr. Hunter passed his hand up the rectum; eight inches from the anus he discovered a slight projection with a central depression, something like a soft os uteri. Into this depression he insinuated his finger, and gradually dilated it, slowly pushing it upwards at the same time; sixteen inches from the anus, the hand came into a large space filled with pultaceous matter. A tube was now passed up the arm and hollow of the hand, and through this an enormous quantity of dark green semifluid matter and flatus escaped. In a fortnight's time the patient was sufficiently well to leave the hospital, and though a year has elapsed, there has been no sign of recurrence of the obstruction.

4. *Cockle on Acute Strangulation of the Ileum.*—In the *Brit. Med. Journ.*, October 1882, p. 785, Dr. Cockle reports the case of a coach-painter's assistant, aged 17, who, three days previously to coming under observation, after drinking to excess, woke up with an intense pain referred to the hypogastrium and right iliac region; during the morning there was a slight action of the bowels; before midday, vomiting of a greenish fluid occurred. On the third day, when Dr. Cockle first saw him, the pain remained in the same position; there was slight dulness over that part of the abdomen, and on palpation there was a sense of resistance; in other parts the abdomen was uniformly, though not excessively, distended. The sites of hernia, common and uncommon, were examined with negative results. The vomited matter became fluid and dark from admixture of blood; it was not fæculent. Very little urine was passed during the first two days, and none on the third, on the evening of which day the patient died. At the necropsy the obstruction was found to be in the ileum, a piece of which, fourteen inches long, was effectually cut off from the remainder of the intestine, above and below, by a diverticulum of the ileum, communicating with the lumen of the gut in two distinct places within an inch of each other. The obstructed part of the bowel was intensely congested, inflamed, covered in great part with thick lymph, and distended with effused blood. During life, the diagnosis lay between acute strangulating intussusception and acute strangulation of the intestine by a band or diverticulum; the absence of blood-stained mucus inclined Dr. Cockle to the latter, in spite of the presence of the dulness and resistance at the seat of pain. Had this case come under Dr. Cockle's care at an earlier period, he considers that surgical treatment would have not only been justifiable, but imperatively demanded. The diminished secretion of urine he considers due to some inhibiting influence exerted through the sympathetic system of nerves; this sign, when present, may assist the diagnosis.

5. *Drummond on Auscultation of the Mouth and Trachea.*—Dr. Drummond, in a paper read at the last annual meeting of the British Medical Association and reported in the *British Med. Journal* of October 1882, p. 773, states that he heard on his own person, after violent exertion, a whiff synchronous with the cardiac systole, audible during expiration, the mouth being open. This led to an examination of cases of aortic aneurism. The patient being in the recumbent position, the bell-piece of the binaural stethoscope is introduced into the mouth to receive the expired air; should the sign be present, the expiration will appear to be interrupted at each beat of the heart by a whiff. Out of twenty-three cases of aortic aneurism so examined, the whiff was present in seventeen. Dr. Drummond has also gained valuable information from auscultation of the tracheal air-column in conjunction with percussion. The patient, sitting before the auscultator, is directed to hold a specially constructed oval piece of the binaural stethoscope in his mouth, and to breathe very quietly into the tube, taking care not to allow any part of the latter to touch his mouth; the observer, then, with the ear-pieces adjusted, percusses the front of the chest. By this method, great differences in the percussion-note are detected readily; and Dr. Drummond has been able to predict phthisis before there were really any marked changes by which the condition could be diagnosed. Pleurisy, pneumothorax, and other abnormal conditions of the chest, can also be detected in this way; and he strongly recommends its practice to all clinical workers.

6. *Steavenson on Spasmodic Asthma.*—In the *Med. Times and Gaz.*, Sept. 1882, p. 392, is a review of a thesis by Mr. W. E. Steavenson on spasmodic asthma. The author, being a sufferer from asthma himself, does not agree with the ordinarily received

opinions as to the origin and nature of this disease; he thinks it depends rather on a spasmodic contraction of the muscles of inspiration, by which the movements of the chest appear to be arrested at the conclusion of one of the deepest of inspirations, and spasmodically held in that position. Mr. Steavenson attributes the cause of the attack to an abnormal excitability of the vagus, or of the respiratory nerve-centre; he hints that another common cause yet unrecognised may be in the electrical condition of the atmosphere. As regards the treatment, the hypodermic injection of morphia is confidently recommended to relieve an attack; this never having failed in the author's hands, its only drawback being that the doses have gradually to be increased. The thesis is the more valuable from being founded on the personal experience of the disease of which it treats.

7. *Harrison on Primary Endocarditis.*—In the *Brit. Med. Journ.*, October 1882, p. 930, is a paper read by Dr. A. J. Harrison at the annual meeting of the association at Worcester, in which he records four cases of idiopathic endocarditis occurring in patients of from fourteen to twenty-five years of age; in each there was a history of the father having had one or several attacks of acute rheumatism. In only one of the four was there any symptom of acute rheumatism, viz., profuse sour-smelling perspiration. One case is recorded by M. Barth, of endocarditis occurring in a fœtus without the mother suffering from rheumatism. It is stated by several other authorities that idiopathic endocarditis may occur, but Dr. Harrison is the first to place such cases on record, and he thinks that it is much commoner than is ordinarily supposed, many persons probably suffering from it without being aware of it; and he is of opinion that it may be the only symptom of an attack of acute rheumatism. In these cases the treatment by salicylate of soda, where it could be borne, was most effectual in arresting the disease, and preventing subsequent changes in the valves of the heart. Richard Neale, M.D.

8. *Pearse on Consumption.*—Dr. Pearse, in the *Med. Times and Gaz.*, July 1882, p. 123, has recorded some observations on the premonitory symptoms and signs of consumption. The commonest are a feeling of coldness all over, or coldness of the extremities only; pain at the epigastrium after taking food; loss of appetite; a feeling of tiredness or weakness; disturbance of the menstrual function; a peculiar development of dark pigmentation of the skin; peculiarities of appetite, such as a fondness for salt meat, pickles, and vinegar; anatomical peculiarities, especially marked in the superior maxillary bones; clubbing, furrows, or brittleness of the nails; peculiarities of the teeth, especially of the upper incisors, which decayed early; a large amount of hair on the scalp. His remarks are continued in the number for August, p. 150, where it is stated that, in people peculiarly liable to consumption, the upper maxillary and nasal bones have an exaggerated tendency to one or other side. The head and neck are not well set up, the neck leaning somewhat forward, and sunk between the shoulders. The hands are either exquisitely fine, or unduly large. The thorax is small, or the body generally diminutive for the age. Dr. Pearse, under the heading 'Form of Phthisis', states that it should not be recognised as a specific existence, but a deviation only from the greater natural and prevailing order of healthy evolution. He treats the tubercle-bacillus as only a minor sequence, and not as a cause of consumption. As regards treatment, on p. 185, he states that, in the pre-phthisical and early phthisical stages, he has found great benefit from a mixture consisting of hydrochloric acid, arsenic, and quinine. Under this treatment, the indigestion, feeling of weakness, and loss of appetite generally disappear. These symptoms are in many cases treated best by change of air or galvanism. Many patients long for the smell of seaweed, and find it refreshing. To meet this, Dr. Pearse has tried a pill composed of three grains of the dried and powdered bladder of the fucus vesiculosus, with one twenty-fourth of a grain of arsenious acid, or a little sulphate of manganese and sea-water in the quinine and acid mixture, with great benefit. This was first suggested by the fact that the heart of a shark, after it has been taken from the body, will contract on irritation an hour longer in a solution of sulphate of manganese and sea-water than in air; and that, until the day when exact analysis shall tell us what is the difference in composition between one who passes into phthisis, and one who does not, we can only seek our remedies by the analogy and the instincts of patients.

9. *Stewart on the Origin of Chorea, etc.*—Mr. W. Stewart, in the *Brit. Med. Jour.*, Nov. 1882, p. 939, in a paper entitled, A New Theory of the Unity of Origin of Rheumarthritis, Carditis, and Chorea, states that he has founded it on clinical observation of such cases as severe swelling of various joints following immediately on follicular tonsillitis or chorea. The pith of the theory lays in the introduction of a cell to the general current of the circulation, to which cell the name of pathogenic is given; in its nature and appearance it is supposed to resemble a white blood-corpuscle; a devitalised white blood-corpuscle, which acquires at the same time, and to the same extent as it loses its vitality, a pathogenic power. It is introduced to the blood by the well-known process of absorption through the medium of a lymphatic vessel and gland, and is manufactured from a healthy corpuscle by a degree of local inflammation which stops short of tubercle-cells on the one hand, or of ordinary pus-cells on the other; the rheumatic, the tubercle, and the pyæmic-cells differing from one another in the degree of devitalisation only. If the capillary circulation and nutrition of the brain be affected by this cell, we shall have disturbance of its function, and thus the nervous phenomena—both psychical and physical—of chorea arise; when the nutrition of the heart is affected, we shall have the cardiac symptoms; and so on in like manner with the lungs, the joints or the liver. The question, which of these affections will first have birth? is decided by certain existing or determining conditions peculiar to the idiosyncrasies of the case, or its surroundings.

10. *Sturges on Acute Tuberculosis.*—Dr. Octavius Sturges, in the *Lancet* for September 1882, p. 427, records the case of a lad, aged 17, with a consumptive history, who, having caught cold, was confined to his bed for a fortnight before coming under observation, the symptoms being coughing, great expectoration, repeated nose-bleeding, and profuse sweating, especially at night. He lost much flesh, but was sufficiently well to get up. For the first fortnight after admission, his condition indicated extreme depression; the temperature ranged from 102 deg. to 104.6 deg.; there were complete anorexia, sleeplessness, night-sweating, wearing cough, and rapid wasting. After this, slight signs of improvement were apparent, which gradually increased till he was pronounced convalescent. When he was at his worst, examination

of the chest indicated only some small bubbling *râles* at the left base; he was then treated with ten-grain doses of hypophosphite of soda every four hours. The only point in this case, negativing the diagnosis as acute tuberculosis, is that he did not die. Dr. Sturges is convinced that the symptoms were due to this disease; and, as confirmatory of this, he points out that the tuberculous can be recognised by their peculiar features; that certain localities and modes of living are at least hostile to tuberculosis; and that, by having recourse to such places and modes of living, a threatened attack may be averted.

R. Neale, M.D.

11. *Lasègue on Abnormal Somnolence.*—M. Lasègue (*Journ. de Méd. et de Chir. Prat.*, vol. liii, p. 437) relates several cases of abnormal somnolence. A bar-keeper was often taken with an irresistible desire to sleep while serving his customers, and, putting his glasses on the table, slept for a few minutes. A porter, in a glass merchant's, would stop in the street, lean against the wall with his basket on his shoulder, and sleep; then, waking in a few instants, would rub his eyes and go on his way. A young girl felt a great disposition to go to sleep in church, but managed to get home and go to bed, where she remained asleep for three days. A young farmer was out hunting, when he sat down in a field and went to sleep, his companions being unable to awaken him. He awoke in five or six hours, but the next day he went to sleep at the same time, and ever since has done so every day. This was a hypnotic sleep, which could be brought to an end by blowing on the face. He was nevertheless difficult to mesmerise in the ordinary sense. A young girl went to sleep always at eight o'clock, day and night, with or without a clock. A Belgian countess went to sleep regularly at nine o'clock, whatever she might be doing, and remained until the following day in the position she then occupied. Here catalepsy was joined to hypnotism. She recovered after two years.

12. *Bernard on Epidemic and Contagious Pneumonia.*—Bernard (*Journ. de Méd. et de Chir. Prat.*, vol. liii, p. 447) reports an epidemic of pneumonia which began in May in three adjoining houses, in the upper part of the village, affecting children of three to five years. Then it appeared in the lower part of the village in two children of three to five, brother and sister, who were taken at first with intense fever and delirium, and pneumonia appeared at the apex; both recovered. Then it occurred in a woman aged 38, who had often gone to the house of the first patient; in her also the apex was involved, but she recovered. Then another child who lived near the second group had right broncho-pneumonia, and recovered. Only one died in convulsions; he was a year old. All but one had pneumonia of the apex. The epidemic terminated in less than three weeks. Eight years ago, a Parisian family hired a house in the upper part of the town. The husband, 60 years of age, died of pneumonia in six days, his wife died eight days later, and Bernard himself had a slight pneumonia at the apex.

13. *Potain on Supraclavicular Œdema.*—M. Potain read a paper at the Académie de Médecine (*Le Progrès Méd.*, 1882, No. 31) upon a 'prominence situated in one or other of the supraclavicular regions, and usually in both, which transforms the habitual depression in this place to a convexity elevated two, or even three, centimètres above the plane of the neighbouring parts, oval or triangular in shape, ill-defined at the margin, with blunted angles and contours as ill-marked to the touch as to the eye. This prominence is contained in the space between the clavicle, the trapezius, and the sterno-mastoid.' It is painless, non-fluctuating, and does not pit on pressure. It is connected with the rheumatic diathesis and gout. The same kind of œdema is met with in other parts, particularly in the hands. It leads to an increase of the subcutaneous fat after some time.

14. *Engel on the Prodromic Stage of Bright's Disease.*—Dr. Hugo Engel (*New York Med. Record*, Oct. 7, 1882) maintains that albumen is rarely found in the urine of persons who have not a tendency to Bright's disease. He gives a case with a family history of Bright's disease, in which a heavy meal was always followed by albuminuria, while in nineteen other cases, without predisposition, albumen was found in three, and in these only exceptionally. He also gives (1) a case, without antecedents, who passed albumen after drinking too much beer; another (2) also without antecedents, of dyspepsia and albuminuria; and (3) of one whose albuminuria depended upon his being excited. He also refers to another case, with family predisposition, in which rapid eating would bring on albuminuria. Finally, he gives an account of a young painter who had frequent albuminuria and dyspepsia, without lead-colic, and who was killed by a fall from a scaffold. The kidneys were large; there was endo-arteritis, and hypertrophy of the muscular coat of the small vessels. He recommends as prophylactic treatment diminution of the quantity of the food, especially of its nitrogenous elements, avoidance of chills, and the use of albuminate of tannin to check the albuminuria, and benzyl-bromide to promote the elimination of nitrogenous matter. [The author's cases can scarcely be regarded as affording much evidence of the truth of his proposition, that albuminuria is only rarely met with apart from a predisposition to Bright's disease, as, out of six cases in which albumen was frequently found, there was evidence of predisposition in three only.—*Rep.*]

15. *Saundby on Migraine with Paralysis of the Third Nerve.*—Dr. Saundby (*Lancet*, Sept. 2, 1882) reports a case of migraine in a young woman, which had occurred at intervals ever since she was twelve years of age, and had always been accompanied by complete paralysis of the left nerve. This paralysis passed off in a few days, but there remained a slight degree of permanent ptosis, complete paralysis of the superior rectus, slight dilatation of the pupil, and vision = $\frac{15}{1}$. The patient had enjoyed otherwise good health, was well developed, and well nourished, and had never suffered from fits.

16. *Saundby on the Albuminuria of Epilepsy.*—Dr. Saundby (*Med. Times and Gaz.*, Oct. 14, 1882), after referring to the contradictory statements of previous observers, says that, out of twenty-seven observations of the urine of twenty chronic epileptics, albumen was found on twenty-two occasions. The test employed was simply boiling, and acidulating with acetic acid. The quantity varied from a copious precipitate to a faint trace, but, as a general rule, was small. Five examinations were made directly after a fit; of these albumen was absent in two. He does not regard the albuminuria as having any distinct relation to the fits, but connects it with the age of his patients (the average age being eighteen), the dyspepsia and anæmia which were so common among them, and the fact that the urine was examined after they had been walking. Pulse-tracings were taken in ten cases, but in two only was the tension high.

17. *Demange on Loss of Teeth in Tabes Dorsalis.*—Demange (*Jour. de Méd. et de Chir. Prat.*, vol. liii, p. 456) records two cases of locomotor ataxy, in which there had been rapid and spontaneous loss of, in one case, all the teeth of the upper jaw, in the other in all the teeth on one side of the upper jaw. The first case had suffered from lightning pains in the face; and, in the second, there was anæsthesia and analgesia in the whole trifacial area.

18. *Sée on Infectious Pneumonia.*—M. Germain Sée (*L'Union Méd.*, Nos. 76-79, 1882) distinguishes three varieties of infectious pneumonia: 1, malarial pneumonia; 2, erysipelatous pneumonia; 3, typhoid pneumonia. By the latter he understands a form of typhoid fever which finds its chief expression in inflammation of the lungs. The kidneys, pleura, pericardium, etc., are often involved. The spleen is enlarged; there may be icterus. Ordinary croupous pneumonia he considers to be local, not an infectious, disease.

19. *Meigs on Albuminuria.*—Dr. Arthur V. Meigs read a paper before the College of Physicians of Philadelphia (*Medical News*, Oct. 21st, 1882), based on sixty-two cases of albuminuria, of which he had notes. Three of these cases, still alive, were found more than eight years ago to have albumen and casts in their urine. A careful study of his cases had led him to the following conclusions. 1. In no ordinary uncomplicated case of Bright's disease should a prognosis of speedy death, or even of incurable disease, be given; for he has related cases in which the disease was chronic, lasting more than two years, and which ended in complete recovery, and others, in which the person affected lived nearly nine years. 2. Dyspnœa, usually taking the form of renal asthma, is much more common than is usually supposed, and, when properly appreciated, is a valuable diagnostic sign of the disease; also severe coryza is a complication or accompaniment, and has a diagnostic value. 3. Bright's disease, as a cause of death, is on the increase. 4. It is a very common cause of the deaths of old people, probably being the direct cause in many deaths reported as of old age. 5. The passage of gravel, even when microscopic in size, but particularly if large enough to cause nephritic colic, is a prolific cause of the disease. 6. The occurrence of tube-casts in the urine, without, or in advance of, the presence of albumen, is very common; and, *vice versâ*, persons may die of Bright's disease, and the most careful examination fail to show any tube-casts, although there may be albumen constantly present in the urine. 7. The abuse of alcohol is certainly a cause of kidney-disease, as proved by a case related by Dr. Meigs, in which it again and again caused hæmorrhage from the kidney, with the temporary presence of albumen and tube-casts in the urine, disappearing again with the cessation of its consumption. In the discussion that followed, Dr. M. P. Harris drew attention to the diagnostic importance of vomiting. Dr. H. C. Wood thought there might be Bright's disease without either albumen or casts in the urine. Dr. Tyson would not deny that there might be such cases, but he had never met with one. He considered uræmic convulsions of very bad prognosis in contracting kidney. He could not think persistent albuminuria consistent with a healthy state of the kidney.

20. *Grancher on the State of the Lung in Pleurisy.*—M. Grancher (*L'Union Méd.*) believes that the physical signs over the upper part of the chest are not attended to suffi iently in pleurisy. Thus, if the lung be hea'thy, the subclavicular tympanism will coincide with increase of the vocal vibrations and respiration; if it be congested, the respiration is abnormal, generally weak, and this is most often of tubercular origin. Finally, both the vocal vibrations and the respiration may be diminished from various pathological causes, most usually from œdema of the lungs and compression of the bronchi.

21. *Flint on Gout and Lead-Poisoning.*—Dr. Austin Flint (*Boston Med. and Surg. Jour.*, Oct. 19, 1882) has published a case of Bright's disease with hypertrophy of the heart, lead-poisoning, and gout. The patient had lead-palsy, and has had several attacks of colic. His ankle was swollen, he had gouty deposits in the ear, and had had several attacks of regular gout in the toe. There was no family history of gout, but the patient had been in the habit of drinking 'a good deal of ale'.

22. *Roques on Symmetrical Gangrene in Bright's Disease.*—M. Roques (*Gaz. Hebd. de Méd. et de Chir.*, No. 44, 1882) reports a case of symmetrical gangrene, affecting all four extremities, in a patient admitted for cardiac failure, in whom he noted intense pulmonary congestion, enlargement of the liver, albuminuria, and tumultuous cardiac action. Her vision was dim, but the ophthalmoscope showed the fundus to be normal, except that the retinal vessels were rather slender. For some time she had suffered from her fingers becoming pale, and as if dead. After being a few days in the hospital, her toes became livid and cold, and similar patches appeared on the legs, though the dorsalis pedis arteries pulsated, but perhaps rather feebly. The upper extremities soon presented similar phenomena; and ultimately the little fingers of the right hand, and the toe of the same side, became gangrenous. The patient died of heart-failure in spite of all remedies, including oxygen and electricity. At the necropsy, a ring of vegetations was found around the aortic valves; the heart was hypertrophied; the mitral valve was healthy; the right lung was hepatised; the liver was nutmeggy; the spleen was healthy; both kidneys presented an advanced degree of interstitial nephritis; the arteries of the extremities were normal and free from embola; no infarcts were found anywhere. The condition of the central nervous organs is not reported. M. Roques imagines that this symmetrical gangrene is in some obscure way associated with or dependent upon the renal disease. In support of this hypothesis, he alludes to the vaso-motor disturbances met with in Bright's disease, and instances œdema of one half of the body, deadness of the fingers, and certain forms of pruritus.

23. *Barr on Reduplication of the Cardiac Sounds.*—Dr. James Barr (*Liverpool Medico-Chir. Jour.*, July 1882) explains reduplication of the cardiac sounds by the asynchronous action of the ventricles, but differs from those who regard this asynchronism as the result of delay on the part of the ventricle which has to overcome the greater pressure. 'The ventricle, which is relatively best supplied with blood, and which best retains its muscular irritability, has the inhibitory action of the vagus first overcome, first raises its intraventricular pressure, and tensely closes its auriculo-ventricular valve, which gives rise to the first element of a double first sound. It does not necessarily follow that the ventricle which begins will first end contraction, for the period of systole varies. The period of systole depends on the mass to be moved, the power of the ventricle to move it, and the resistance in front; and, *cæteris paribus*, the greater the resistance the longer the systole. Frequently the ventricle which begins contraction has

proportionately the greatest amount of work to do; so its systole is protracted, and hence a double second sound is not a necessary accompaniment of a double first. Again, both may commence their systole together, but one, having, in proportion to its power, relatively less work to do, may end before the other; hence, a double second sound.'

R. SAUNDBY, M.D.

SURGERY.

RECENT PAPERS.

1. ZESAS.—Extirpation of the Spleen. (*Arch. für Chir.*, Band xxviii, Heft 1.)

2. GEFFRIER.—Gonorrhœal Cystitis. (*Rev. de Chir.*, June 1882.)

3. BRUGLOCHER. — Resection of Several Ribs in Empyema. (*Aerztlich. Intell.-Blatt*, No. 31, 1882.)

4. WEST.—Wound of the Pericardium, Heart, and Stomach. (*Lancet*, July 1882, p. 55)

5. WORTHINGTON.—Puncture for Intestinal Obstruction. (*Brit. Med. Jour.*, July 1882, p. 167.)

6. BATTEN. — Belladonna in Hernia. (*Brit. Med. Journ.*, July 1882, p. 87.)

7. THOMSON.—Refraction of the Patella. (*Brit. Med. Jour.*, Aug. 1882, p. 358.)

8. BRYANT.—Popliteal Aneurism cured by Dr. Fleet Spiers's Artery Compressor. (*Brit. Med. Journ.*, October, p. 721.)

9. MARSH.—Bone-setting. (*Brit. Med. Journ.*, Oct., p. 663.)

10. MORRIS.—On Ranula. (*Med. Times and Gazette*, Sept., p. 355.)

11. HARRISON.—Litholapaxy. (*Brit. Med. Journ.*, October, p. 669.)

12. WILKES.—Flexible Probe for Detecting Bullets. (*Med. Times and Gazette*, July, p. 257.)

13. MUSSEY.—Treatment of Chronic Cystitis by the Vesical Curette. (*Columbus Med. Jour.*, Sept.)

14. GARRISON.—Dry Gangrene from Local Application of Carbolic Acid. (*Western Med. Rep.*)

15. DUNCAN J.—The Treatment of Fresh Wounds. (*Edin. Med. Journ.*, July.)

16. OLLIER. — Subperiosteal Amputation and Disarticulation. (*Rev. de Thérap.*, May 15th.)

17. RASUMOWSKY.—Rare Case of Foreign Body in the Bladder. (*Proceedings of the Med. Soc. of Kazan*, March 1882.)

18. HACK.—Hereditary Fissure of the Tongue. (*Monatsschr., für Prakt. Dermatol.*, April 1882.)

19. WHITMAN.—Sponge-Grafting. (*New York Med. Record*, Oct. 9.)

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1. *Zesas on Extirpation of the Spleen.*—Dr. D. G. Zesas of Zurich, in an article on extirpation of the spleen in man and in animals (*Archiv für Chir.*, Band xxviii, Heft 1), points out that the function of the spleen is not of very great importance in maintaining life and preserving the normal constitution of the blood. Early in 1881, he proved by a series of experiments on rabbits, that animals deprived of the spleen may live on without inconvenience, and that this organ may be represented by other structures, particularly lymph-glands that have undergone hypertrophy. Thirty cases of splenotomy on man have been collected by the author. Of ten of these cases in which the operation had been performed for morbid growths or hypertrophy, four were successful. In the first recorded case of splenotomy practised by Zuccarelli in 1549, the patient is stated to have recovered; and two recent cases under Péan of Paris, one of cystic degeneration of the spleen, and the other of splenic tumour, were also successful. In the other cases, twenty in number, the spleen was removed in consequence of injury, and of its protrusion through a rent in the abdominal wall. It is recorded that in every one of these traumatic cases the patient recovered. Although these scanty statistics speak rather for than against splenotomy, still, the author holds, this operation has its dark side; and until we know more of its results, and have carefully and rigorously tested it, no surgeon can justifiably advocate its claims. It can only be applied, it is thought, in some few special cases. Although absence of the spleen need not itself be a fatal condition, still the anatomical connections of this organ, and the possibility of the existence of extensive adhesions in cases of its disease, necessarily render splenotomy a very dangerous operation. The patient's hepatic and pulmonary organs should be carefully examined, and the general condition be noted in every case where the operation may be suggested. If the patient be cachectic, phthisical, or strumous, the idea of operative interference should be rejected; for in conditions of this kind the lymph-glands are usually involved, and on the normal state of these compensatory organs the success of splenotomy mainly depends. The operation is contra-indicated also by the existence of extensive splenic adhesion, and by decided symptoms of cirrhosis of liver. In discussing the different morbid conditions of the spleen, with regard to the indications for splenotomy, Dr. Zesas points out that carcinoma of this organ is usually secondary. Tubercular disease of the spleen, whether in the form of grey miliary tubercle, or in that of yellow cheesy masses, cannot be diagnosed during life. In those cases of wandering, prolapsed, or dislocated spleen, for the treatment of which Kuchenmeister advocated splenotomy, it would be advisable, Dr. Zesas thinks, to try quinine internally, and external appliances such as abdominal belts, before having recourse to such an extreme measure. Hydatid disease of the spleen will be best treated by puncture and injections. Splenic hypertrophy is in most instances a complication of some disease of the cardiac, pulmonary, or hepatic systems. It is possible to make out splenic hypertrophy, and to distinguish from any morbid growth in this organ; but it is very difficult to decide whether this hypertrophy be idiopathic or the result of disease of the blood, or of some other organ. In cases of idiopathic splenic hypertrophy, the indication for operation might be regarded as more favourable. The operation, however, should be performed before the patient is much exhausted. The prognosis of idiopathic splenic hypertrophy, according to Grisolle, is very bad. The patient suffers from palpitation and vomiting, loses strength rapidly, and often becomes dropsical. Splenic hypertrophy from malarial cachexia, hepatic cirrhosis, or leukæmia can be treated only by internal remedies and baths. If the enlarged spleen give rise to strangulation symptoms, or be ruptured through injury, splenotomy might be performed as a desperate measure for saving life. The author concludes that splenotomy is justifiable in but very few conditions of disease of the spleen. When performed, the surgeon should direct particular attention to the securing of the pedicle, and the tying of all vessels. In two of the six fatal cases, death was due to hæmorrhage; and in another, the tail of the pancreas was found at the necropsy to have been included in a ligature. In Péan's two successful cases, much care

was taken to prevent hæmorrhage, and but very little blood was lost. The general condition of the patient should be considered, and every possible effort be made to avoid the sides of infection.

2. *Geffrier on Gonorrhœal Cystitis.*—M. P. Geffrier, who, during 1881, observed many cases of gonorrhœal cystitis under the care of Professor Guyon, at the Necker Hospital, directs attention, in a contribution to the June number of the *Revue de Chirurgie*, to certain points relating to the course of this affection. The duration of gonorrhœal cystitis, it is stated, cannot be fixed with any certainty, for no other affection is more irregular. In some cases the cystitis appears during the acute stage of gonorrhœa, and ceases at the end of this stage without any special treatment. But in most instances the vesical affection survives the acute urethral manifestations, and persists for a long time when the urethra is the seat of merely a slight and thin discharge, or indeed quite free from discharge of any kind. When the cystitis, as is not unfrequently observed, lasts for months, temporary remissions may occur, hæmaturia ceasing for a time, and then returning without any appreciable cause. In the majority of cases gonorrhœal cystitis has no tendency to spontaneous cure. There is no difference with regard to symptoms between recent and persistent cystitis. In each case the patient suffers from like pains, and from frequent micturition and tenesmus. The hæmaturia is as well marked in the chronic as in the acute form, and in both forms there is an absence of fever and of general symptoms. Abnormal frequency in micturition often persists after successful treatment as a last trace of the cystitis, denoting a certain degree of irritability of the neck of the bladder, which is slow to disappear, and may become the starting-point of a fresh attack of cystitis in case of any subsequent indulgences in venereal excess or in drink. The fresh cystitis will be of the same character as the previous attack. Relapses of this kind, which may be produced after intervals of some years, and even without any fresh urethral manifestation, form a remarkable feature in the clinical history of gonorrhœal cystitis. The symptoms of prostatitis have not the least resemblance to those of gonorrhœal cystitis. In the former affection, the pains radiate from the perinæum along the rectum, and are not localised, as in cystitis, to the hypogastric region and the navicular fossa. The tenesmus of prostatitis is rectal, that of cystitis vesical. Finally, hæmaturia is not met with in prostatitis unless the mucous membrane of the urethra have been injured by attempts at catheterism, and then this symptom never presents the particular aspect which is to be observed in the hæmaturia of gonorrhœal cystitis. In cases of inflammatory affection of the prostate, rectal examination alone should prevent the surgeon from committing any great error. The gonorrhœal origin of the cystitis may always be readily made out in cases where there has recently been a discharge ; but where there has not been an attack of gonorrhœa for several months or years, the etiology becomes doubtful. It will be almost always found in these cases that some abnormal condition has persisted since the last attack of gonorrhœa, either some gleet, or a slight scalding on the part of the urethra, or slightly increased frequency in micturition or transient pain at the end of this act on the part of the bladder. Gonorrhœal cystitis being essentially an hæmorrhagic affection, it is not unlikely to be confounded with calculous hæmaturia and with tubercular cystitis. The fact that the symptoms set up in a calculous subject by striking or active exercise are but of short duration, and that the pain, frequency of micturition and hæmaturia cease with their cause, should enable the surgeon to establish the diagnosis without hesitation. In the case of tubercular cystitis the diagnosis is much more difficult. The pain in this affection is increased in intensity during and at the end of micturition, but usually it does not cease altogether in the intervals. In gonorrhœal cystitis, except in its very acute form, where the pain is almost continuous, there is a remission in the intervals of the acts of micturition. The pain and increased micturition are more likely to become more intense during the night in the tubercular than in the gonorrhœal form cystitis. Tubercular cystitis is sometimes preceded by profuse hæmaturia, analogous to the premonitory hæmoptysis of pulmonary phthisis. Such hæmaturia, abundant, occurring without appreciable cause, and in the absence of any other urinary disturbance, is never observed in connection with gonorrhœal cystitis. In doubtful cases of cystitis the lungs should be carefully examined, and also the prostate and vesiculæ seminales. In most of the cases of tubercular cystitis, there is a co-existence of vesical and of genital tuberculosis. It is pointed out, and a case is reported to prove the statement, that gonorrhœal cystitis may become the starting point of vesical tuberculosis. In conclusion, M. Geffrier advocates, as the best treatment of gonorrhœal cystitis, frequentiy repeated injections of solutions of nitrate of silver. W. JOHNSON SMITH.

3. *Bruglocher on Resection of Several Ribs in Empyema.*—Dr. Bruglocher of Schabach (*Aerztl. Intell.*, No. 31, 1882) contributes a paper on this subject, advocating the practice of resection of several ribs in cases of long-standing empyema in adult patients. He regards the excision of a small piece of rib, as accessory to the ordinary method of opening the pleural cavity, as accepted by the profession at the present time ; the proceeding being a matter of indifference to the patient, but of decided value in its results. The ultimate results of operation for relief of empyema are found to be uniformly more satisfactory in children than in adults. The explanation of this fact he finds in the greater elasticity of the chest-walls, which adapt themselves to the diminished size of the compressed lung, and thus assist in lessening the size of the pleural cavity. This retraction of the chest-walls can only take place to a very limited extent in the more rigid adult thorax, and hence the recovery is prevented by a purely mechanical agency, which admits of removal by mechanical means. Resection of ribs has generally been undertaken only as a means of facilitating the continued escape of pus from a suppurating pleura; here, however, one has to do with a plastic operation, the result of which depends, amongst other things, upon the mathematical exactness with which it is carried out. Several authors have practised and recommended this method, which was first suggested by Simon. As the result of an investigation into the work of several authors, Dr. Homen of Helsingfors lays down the rule that, in cases where two to three months have passed between the commencement of the disease and the formation of a fistula, and where recovery has not taken place in from four to five months afterwards, no hope can be entertained of recovery by ordinary means. The details of a case are related in which a simple serous pleurisy in a man, aged 45, was treated at first by puncture, with apparent success. Six months later, a painless swelling became developed in the right

side in the axillary line, dulness and absence of respiratory sounds being noted, extending as far upwards as the middle of the shoulder-blade. Its contents being found to be purulent, the tumour was incised, three months after its first appearance, and a portion of the eighth rib, about one inch, removed. The whole operation and subsequent treatment of the wound were carried out strictly antiseptically, and the discharge from the opening was but very slight, but recovery did not take place. Ten weeks after the operation, it was found that a cavity still remained, allowing a probe to pass three inches from without inwards, and four and a quarter inches upwards. Free resection of the fourth, fifth, sixth, seventh, and eighth ribs was then performed, three and three-quarter inches being removed from the lowest, and one and three-quarter inches from the highest of these, and from the intermediate ribs gradually increasing lengths. The pleura was not opened in any fresh place. By various methods of calculation, Dr. Bruglocher arrives at the conclusion that the length of rib to be removed must about correspond with the distance between the pulmonary and parietal pleura, and the resection must be carried upwards in gradually decreasing extent to the point where the two surfaces of pleura are again in contact. The results obtained in this case were satisfactory, the falling-in of the chest-wall was ultimately followed by complete healing of the sinus.

E. Clifford Beale, M.B.

4. *West on Bullet-wound of the Pericardium, Heart, and Stomach.*—In the *Lancet*, July 1882, p. 55, Mr. J. F. West reports a case admitted under his care at the Queen's Hospital, Birmingham. There was a self-inflicted wound three inches below the left nipple, and one inch to its sternal side. This was not accompanied by external hæmorrhage, but the patient vomited blood; he was suffering from slight shock, and died twenty-three hours after the infliction of the injury. In the necropsy, the bullet was seen to have entered through the fifth interspace into the pericardium, lacerating a few fibres of the apex of the heart, thence again through the pericardium and diaphragm into and through the stomach, passing out through the posterior wall, through the diaphragm again, and finally lodging in the body of the tenth dorsal vertebra. The left pleura contained a large quantity of bloody fluid, and the intestines were full of black blood. It is marvellous that this patient should have lived twenty-three hours after such serious injuries. The case is all the more interesting from the comparative rarity of such wounds.

5. *Worthington on Puncture for Intestinal Obstruction.*—Mr. Worthington, in the *Brit. Med. Jour.*, July 1882, p. 167, reports a case of a labourer, aged 28, who had had for some time attacks of constipation and vomiting, but, on coming under treatment, was suffering from acute obstruction. The abdomen was enormously distended. The patient suffered from stercoraceous vomiting, and great pain about the umbilicus; no hernia was discovered. These symptoms gradually became worse for six days, during which opium was given, enemata administered, and fomentations, and, later, ice were applied to the abdomen. Mr. Worthington, as a preliminary to abdominal section, punctured the abdominal walls at a spot two and a half inches above, and one and a half to the left of, the umbilicus, with a medium-sized aspirating needle. A large quantity of flatus gradually escaped, followed by stercoraceous fluid; some gurgling was then noticed in the bowels. A few hours later, the patient passed wind, and two fluid stools. A week afterwards, it was discovered that he had a small direct inguinal hernia. He made a rapid recovery, and, on a truss being applied, he returned to his usual occupation.

6. *Batten on Belladonna in Hernia.*—In the *Brit. Med. Jour.*, July 1882, p. 87, Mr. Batten records two cases of hernia treated by large doses of belladonna. The first was a man, aged 79, with an old inguinal hernia, who, a week before coming under treatment, while doing some heavy work, felt the hernia suddenly give way. Ordinary means failed to reduce it, and the patient refused either to take chloroform or undergo an operation. He was ordered half-drachm doses of the tincture of belladonna every half hour; in three hours' time there were toxic effects, and the rupture passed up easily. The hernia came down again a fortnight afterwards; but, after taking three half-drachm doses, it was easily returned. The second was a youth, aged 19, suffering from a hernia, which had existed since childhood. Taxis, in a hot bath, and under chloroform, being unsuccessful, forty-minim doses of tincture of belladonna were given every hour; after four doses he fell asleep, and, after two hours more, the hernia was found returned. Mr. Batten concludes some remarks on these two cases with the observation that belladonna contracts the calibre of the congested vessels, and the non-striated muscular walls of the protruded gut, and thus renders reduction into the abdominal cavity more easy.

7. *Thomson on Ligature of the Innominate Artery for Subclavian Aneurism.*—Mr. William Thomson gives in detail his interesting case of ligature of the innominate artery in the *Brit. Med. Jour.*, Oct. 1882, p. 722. The case did well until the forty-second day, when death ensued. The result of the operation would lead Mr. Thomson to perform it again, as the cause of death in this case was accidental, being due to ulceration that appears to have originated in the use of the drainage-tube. A very full and exhaustive history of all known cases of ligature of the innominate concludes this instructive paper.

8. *Bryant on Popliteal Aneurism cured by Dr. Fleet Spiers's Artery-Constrictor.* — Mr. Thomas Bryant, in the *Brit. Med. Jour.*, Oct. 1882, p. 721, relates a case, giving a plate of the instrument, in which Dr. Spiers's hook cured a case of popliteal aneurism. Esmarch's bandage had been first applied for about an hour, but the heart's action was so much disturbed that serious results were anticipated. After all cause for alarm had passed, the hook was applied under strict Listerian precautions, a perfect cure resulting.

9. *Marsh on Bone-Setting.*—There is a paper, by Mr. Howard Marsh, in the *Brit. Med. Jour.* for Oct., p. 663, giving an insight into the proceedings of the class of practitioners commonly called bone-setters, and pointing out that, in nine cases out of ten, it is the surgeon's own fault that his patients fall into their hands. Bone-setters owe their reputation chiefly to cases in which joints, that are themselves healthy, are stiffened and painful from surrounding adhesions, or from the rigidity of muscles that have either been fixed by too long position, or left contracted after reflex irritation has subsided. In this class, the surgeon should not only move the limbs before they are stiff, but should guard against adhesions by passive motions. Every case is treated in exactly the same way; the joint is made to go through all its normal movements; the patient is always told a 'bone is out'. A common remark is that, though surgeons know all about the large bones, they pay

very little attention to the little ones. If we substitute the term 'lesser ailments' for small bones, the assertion rests, perhaps, on some foundation in fact.

10. *Morris on Ranula.*—In the *Med. Times and Gaz.* for Sept., p. 355, Mr. Morris records a case of ranula in a patient aged 40. It was of such large size that the tongue looked as though it were enlarged and tied down to the floor of the buccal cavity in front, being, however, much above the level of the lower teeth; but, on further examination, the tongue appeared to be a mere appendage to a ranula situated beneath it. The ranula began, ten months previously, as a small bladder-like enlargement on one side of the frænum. It was soft but not fluctuating; it showed one small ulcerated spot on the left side. Pain and swelling of the neighbouring glands were absent; but it caused considerable inconvenience from its size. A small quadrilateral piece of the anterior wall was cut away, and the cavity stuffed with long strips of lint, some of which were soaked in the tincture of the perchloride of iron. The contents looked like white of egg, and measured an ounce; they became quite solid on heating. The cavity closed by granulation, and subsequently contracted, the cure being quite uninterrupted.

11. *Harrison on Litholapaxy.*—Mr. Reginald Harrison reports, in the *Brit. Med. Jour.* for Oct., p. 669, a case of litholapaxy, which is worthy of record in that the stone must be amongst the largest of those so treated. It was too large to be grasped with the lithotrite, but, by clipping away at its sides, it was sufficiently reduced in size to be grasped and broken across. This was done with the fenestrated lithotrite; the operation was finished with the smooth-bladed instrument. The patient was under anæsthetics for two hours and ten minutes, during which period thirty washings out of the bladder were employed. The calculus was a compound one of phosphates and urates. The fragments weighed, when dried, exactly two ounces and two drachms; making an allowance for a certain loss of fragments during the numerous washings, the stone could not have weighed less than two ounces and a half. The patient made an uninterrupted and perfect recovery, leaving the infirmary to continue his usual occupation thirty-two days after the operation.

12. *Wilkes' Flexible Probe for Detecting Bullets.*—Mr. Wilkes, in the *Med. Times and Gaz.* for Aug., p. 257, describes a probe which will be very useful for the detection of bullets, or for introducing into burrowing sinuses, when it can be stiffened and cut down upon. It consists of an elastic blind catheter with a porcelain tip and of good length, with a series of stilettes of varying degrees of stiffness. In probing a wound, when the stilette is home, the instrument will go as far as a stiff probe; by withdrawing the stilette a certain distance, the end will be flexible and able to follow the sinuosities which a ball would take. By its power of bending in any way of least resistance, one can pass on the stilette to that point, and try again; and by such a plan the bullet may finally be reached. R. NEALE, M.D.

13. *Mussey on the Treatment of Chronic Cystitis by the Vesical Curette.*—Dr. W. H. Mussey of Cincinnati (*Columbus Med. Jour.*, Sept. 1882) has devised a curette for scraping the surface of the bladder, where such a manipulation appears to be indicated. The instrument consists of a solid steel sound (No. 20 American scale), with a very long curve, in contrast with the so-called 'Van Buren curve', which is short and abrupt. After suitable dilatation of the urethra, the surface of the bladder may be thoroughly scraped, and the scrapings removed. The organ is then subjected to careful irrigation by means of a large silver catheter. In several cases of suspected stone, Dr. Mussey states that he has effected a rapid and complete cure by scraping out the bladder, followed by irrigation. As a wash for the bladder, he uses an emulsion of gum benzoin, one ounce in one pint of water, which should be boiled for six hours, and filled to one pint. In some cases, he finds it advantageous to add carbolic acid or boracic acid in varying proportions to this emulsion.

14. *Garrison on Dry Gangrene from Local Application of Carbolic Acid.*—Dr. J. B. Garrison relates the following case in the *Western Med. Rep.* About the middle of February last, a daughter of Dr. Childress consulted her father as to an onychia in process of development on her right index finger. She was directed to apply carbolic acid; but, instead of applying a few drops to the affected part, she wrapped the entire finger, as far as the second joint, with several folds of linen, and poured on it to saturation pure carbolic acid, liquefied, and allowed it to remain all night. Next morning the bandage was removed; and, on the third day after the occurrence, when Dr. Garrison first saw it, the finger, as far as the second joint, was as black as jet, cold, perfectly anæsthetic, wrinkled and shrivelled, with sulci apparently clinging to the bone; it was hard as wood; in a word, actually mummified, with a line of demarcation entirely around the finger, indicating a complete separation of the dead from the living tissue. Although there seemed no possibility of saving the finger, as it had actually lost every vestige of vitality, he directed a small rubber band to be tied round the finger, near the metacarpo-phalangeal articulation, sufficiently tight to obstruct the reflux of venous blood without repressing the arterial supply. This was applied for five or ten minutes every hour, and kept up continuously for more than two months. The tissues of the finger gradually yielded to the mechanical pressure of the blood, and the digit resumed its shape and functions, except that it was entirely denuded of integument. The old skin was allowed to remain as a protective, and warm moist poultices, with oil and glycerine, were constantly applied to soften the tissues. The fortunate result of this case is an additional argument in favour of the principle of conservatism in surgery, which should obtain in all similar cases.

15. *Duncan on the Treatment of Fresh Wounds.*—Mr. John Duncan (*Edin. Med. Jour.*, July) has recently made some experiments with salicylised wool as a simple dressing. The method he has pursued is as follows. The wound is carefully and accurately stitched after every bleeding point is secured; if the wound be large, an interval of an inch or less is left between two of the stitches at some convenient part, and if, from the nature of the wound, firm compression throughout be uncertain, a few of the catgut ligatures are left long and brought out at the interval, or an India-rubber drainage-tube is inserted. In most cases, it is completely closed. A piece of dextrinised oiled silk is applied. Mr. Lister's object in this application is to protect from carbolic irritation; but, were it not that it also prevents adhesion of the dressings, Mr. Duncan does not consider it of importance when the edges of a wound are carefully approximated. One layer of moistened gauze is the next covering, and over it a thick padding of dry salicylic wool, firmly compressed by a gauze bandage. The layer of gauze facilitates the ultimate removal of the dressings. The dressing is allowed to remain

applied, in many cases where no drainage-tube is used, for three weeks; if a tube is inserted, it is either dispensed with the day after the operation, or at the end of the third or fourth day. The following are the results obtained. 1. *With Perfect Healing:* 3 herniotomies; 3 amputations at the ankle; 2 amputations in the forearm; 1 amputation at the wrist; 1 amputation of the upper arm; 3 excisions of the mamma; 1 excision of the elbow. 2. *With almost Perfect Healing:* 1 amputation of the thigh; 1 excision of the knee; 1 amputation of the leg; 1 excision of the mamma. 3. *In which Failure occurred and the Dressing had to be changed:* 1 strangulated hernia; 1 excision of the wrist; 2 amputations of the ankle. The deductions drawn by Mr. Duncan from his observations are these. 1. When we succeed in preventing sepsis at the operation, we can by this method rely on singularly simple and favourable progress, with total absence of fever, with freedom from pain, and with great rapidity of healing. 2. Should sepsis lead to inflammatory action, it is necessary temporarily to abandon the dressing. 3. Even in septic cases, it is often advantageous to continue it throughout if there be no inflammation, or recur to it when it has subsided, because it is a good recipient for discharge, because it tends to diminish the amount of pus, and because it aids in keeping the part at rest. 4. In fresh wounds so situated that they can be compressed equably, the introduction of materials to secure drainage is usually unnecessary; and if they be employed, they should be removed in twenty-four hours. 5. Sepsis is less apt to occur by this method, as change of dressing is avoided.

16. *Ollier and others on Subperiosteal Amputation and Disarticulation.*—At a meeting of the Surgical Society of Paris (*Rev. de Thérap.*, May 15), M. Ollier of Lyons related experiments made by him on the performance of periosteal coat-sleeve operations in amputations. The results were not satisfactory, and, in a great number of cases, he has refrained from performing this operation. M. Poncet said that he had obtained good results only from this operation; he had never seen the production of osteophytes. He had never had anything but a regular bony growth giving a good shape to the stump. M. Desprès was of the same opinion as M. Ollier, and was completely opposed to subperiosteal amputations. He did not believe that it was possible to detach the periosteum with regularity, and to obtain a periosteal sleeve. M. Poncet said that he had lately amputated the arm of a young man, and detached the periosteum of the humerus with the greatest facility. M. Desprès did not deny that in certain subjects the periosteum might be detached: but that was an exception, and a general rule should not be deduced from one or two cases. A periosteal sleeve might be obtained in a patient on whom an amputation was performed for a white swelling, for then the periosteum was thickened; but, in a healthy individual on whom amputation was performed for a wound in the leg, a complete layer could not be obtained. M. Trélat agreed with M. Poncet, and pointed out that M. Desprès, in attempting to support M. Ollier's opinions, really denied his propositions, for the latter said that the subperiosteal method gave rise to necrosis, to osteophytes, and to fungous bony growths, which elongated and hypertrophied the stump; whilst M. Desprès asserted that detachment of the periosteum was impossible. If, therefore, M. Desprès were right, all M. Ollier's reasons would come to nothing. M. Trélat said he was fully aware that in certain cases it was difficult to obtain a regular periosteal sleeve; but, even in this case, there still remained a covering, irregular, indeed, but supplying round the bone a surface which was admirably adapted to union by first intention. It was, in fact, when the operation was performed with a desire to obtain union by the first intention, that the best conditions for obtaining that result were found in the subperiosteal method. M. Ollier protested that he was not an opponent of subperiosteal amputation, especially in adult patients. Operative difficulties were perfectly non-existent. He cited several cases which showed the advantages of subperiosteal disarticulation. The advantages of this operation were great safety, minimum loss of blood, and very simple after-results. In addition, the retained periosteum frequently reproduced in the stumps a portion of bone, which, later on, was very useful when an artificial apparatus had to be applied.

17. *Rasumowsky on a Case of Foreign Body in the Bladder.*—The following case is recorded in the *Proceedings of the Medical Society of Kazan*, March 1881. Early last spring, a priest consulted Professor Lewschin, at the surgical out-patient department of the Kazan Hospital, asking that a lead-pencil might be removed from his bladder. He had introduced the pencil, twelve days previously, into the urethra. On examination, the presence of the pencil in the bladder could be readily detected, and it was also found that the pointed end of the pencil had perforated the trigone and projected into the rectum. By manipulation, the pencil was readily extracted through the anus; it was over six inches long, and nearly a quarter of an inch in diameter; its surface was covered with phosphates. The most remarkable feature of the case was the turning of the pencil in the bladder, for its blunt end had been introduced into the urethra, yet its point had perforated the rectum. ALBAN DORAN.

18. *Hack on Hereditary Fissure of the Tongue.*—Hack (*Monats. für Prakt. Derm.*, April 1882) relates two series of cases in which several members of the same family suffered from excoriations and fissures of the tongue. There was no history of syphilis. The patches were generally round on the dorsum and oval at the tip and edges, looked red, and the fungiform papillæ were hypertrophied. In one case, the affection dated from early childhood.

19. *Whitman on Sponge-grafting.* — Dr. R. Whitman (*New York Med. Rec.*, Oct. 9, 1882) records four cases of sponge-grafting, and concludes that it is specially valuable in large, deep, circumscribed ulcers, which are often followed by adherent cicatrices which break readily down. The sponges should be thoroughly carbolised, and then soaked in dilute acid until they become quite friable.

ROBERT SAUNDBY, M.D.

ORTHOPÆDIC SURGERY.

RECENT PAPERS.

1. REYNOLDS.—The Treatment of Club-Foot. (*Trans. of Michigan Med. Soc.*, 1881.)

2. GIBNEY.—Diagnosis of Pott's Disease before the Stage of Deformity. (*Boston Med. and Surg. Journ.*; and *New York Med Record.*)

3. BRADFORD.—Treatment of Contraction following Hip-Joint Disease. (*Boston Med. and Surg. Jour.*, and *New York Med. Record.*)

4. LUCAS.—Hereditary Tendency to the Production of Supernumerary Digits. (*Guy's Hospital Reports.*)

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1. *Reynolds on the Treatment of Club-Foot.*—Dr. Reynolds (*Trans. of Michigan Med. Soc.*) urges the treatment of club-foot at birth. His method is as follows. He first surrounds the extremity with batting or wool, and never applies splint over the side of relaxation, because hard unyielding pressure tends much more to enfeeble muscles than an elastic one, such as bandage alone over wool. For the contracted side, he bends a soft splint well in an opposite direction from the contraction, and especially well around the toes; or, if they be bent well over by the splint, the long tendons of the weak side have at once greater leverage, and soon become active in moulding the foot. He dries the splint till hard before applying it, and then bandages not lower down than the metatarsus, for the purpose of allowing some motion to the toes; for alternating contractions and relaxation are almost constant in the tendons of the young child's foot, and those that are weak, being left somewhat free, will soon equal in strength their stronger antagonists under the splint. The dressing should be removed daily at first, to allow bathing and friction, and to avoid injury from pressure.

2. *Gibney on the Diagnosis of Pott's Disease before the Stage of Deformity.*—In a paper presented to the New York State Medical Society (*Boston Med. and Surg. Jour.*, 1882), Dr. Gibney enumerates some pathognomonic points that should be considered in the early diagnosis of spinal caries. In his experience, tenderness on pressure with the hand, or with the hot sponge, is usually found absent in the early stages of the disease; and, indeed, pressure should relieve rather than cause pain. Nor can the presence of yielding or soft spots be relied upon in forming an opinion as to the nature of the lesion, because they may be found in ordinary rickets. The common test of forcible pressure, or a blow on the head or shoulder in the long axis of the body, he holds to be dangerous, especially where the dorsal or the cervical region is diseased. In the general examination of a suspected case, attention should first be devoted to the duration of the symptoms, then to the conduct of the patient during waking hours, and especially to the use he makes of his spine. Inquiry will usually elicit that a slight strain or jar has been followed by a cry of pain, the sufferer seeking relief in some special position that he finds by experience to be effectual. The disturbed sleep of spinal caries is characterised by restless moanings and faint cries on turning, while in hip-joint disease there are sharp cries without waking. In examining the patient, he should be stripped, and, after the spine has been tested as to its mobility, the functions of the hip-joints should be investigated, and the pelvis explored, as well as the ilio-costal spaces, both by palpation and by percussion. When the disease is located in the cervical and cervico-dorsal regions, among the earliest symptoms are found slight torticollis or modified opisthotonus, while the step is apt to be short and cautious; there will also be a compensating backward curve in the dorso-lumbar region, and the head sinks down between the shoulders. The irregularly acting diaphragm will also assist in determining the seat of the disease, as the fourth and fifth nerves are of necessity implicated. The pharynx should then be explored for tumours. When the first or the second vertebra is the seat of the disease, occipital neuralgia will be present in almost every case. When the disease is confined to the dorsal region, there will be an absence of the head-symptoms, and the pain will be referred to parts on a level or below the vertebra affected. There will be a lordosis rather than a projection of the spine. When the lower dorsal region is affected, tumours may present in the ilio-costal space before any bony deformity manifests itself. When the lumbar region is the seat of the difficulty, the early symptoms will be confined to the limbs; there will be lameness or stiffness, and the symptoms will last a long while; flexion of the thigh, which is at first slight, gradually becomes more pronounced. But attention should now be especially devoted to the hip-joint, which will be found normal in every respect. Presently, a soft tumour appears in the groin or in Scarpa's space. Dr. Gibney holds that a soft tumour in this situation, when preceded by a lameness that has persisted for some weeks, and in the absence of hip-joint disease, constitutional disturbance, injury, or intestinal difficulty, indicates disease of the last dorsal or first lumbar vertebra. Dr. Gibney also calls attention to a point brought out in a report to the Therapeutical Society, by Dr. T. E. Satterthwaite (*New York Med. Rec.*, Aug. 21, 1880), that Pott's disease is frequently associated with caries of other joints. He therefore urges that in all such suspected cases a thorough examination should be made of all the joints, lest an important complication be overlooked. Dr. Gibney bases his paper upon an examination of the records in one hundred and ninety-six examples of Pott's disease that came under his inspection during the year ending December 31, 1881.

3. *Bradford on Treatment of Contraction following Hip-Joint Disease, by means of the Weight and Pulley.*—Extension has been used in many different ways to correct deformities resulting from hip-disease, but never in exactly the manner practised by Dr. E. H. Bradford, who has described his experience in a paper read before the Boston Society for Medical Improvement, January 9, 1882 (*Boston Med. and Surg. Jour.*, Jan. 19). In three cases, where the thigh was flexed about a right angle with the axis of the sacrum, after the application of a ham-splint, traction was exerted by weight and pulley; so that, at the end of one week, in the first case reported, the leg was brought into a line with the axis of the body. In the second, at the end of a fortnight, the extension was exerted in a line with the bed on which the patient lay; and eight weeks later, with the ham-splint still in position, the patient was allowed to walk about the ward, and finally was discharged with his limbs nearly parallel. The third case was that of a child, three years old, delicate, but fairly nourished. At the end of three weeks, the deformity was so far improved, that no tilting of the pelvis occurred when the limb was placed on the bed. In this case, advantage was taken of the direct weight of the leg, which is no small factor, as shown in a case of nineteen years' standing, when the deformity attained an angle of 70 deg., and the patient was compelled to wear a shoe raised five inches from the ground. In this case, a ham-splint was so applied as to immobilise the knee-joint when the leg was extended. As soon as the patient became accustomed to the presence of the splint, she was allowed to walk about at will. In this way, treatment could take effect only while the patient was standing. At the end of six months, two inches were removed from the sole of the shoe, and the patient could rest the whole weight of her body upon the

affected limb. In cases of short standing, when only a slight deformity exists, Dr. Bradford finds slight traction, without regard to the line of deformity, is effective in a very short time. The skin in the groin will at times be considerably stretched, causing nocturnal pain, but no serious complication has ever occurred under his supervision.

4. *Lucas on Hereditary Tendency to the Production of Supernumerary Digits.*—Mr. Clement Lucas records a case in *Guy's Hosp. Rep.*, in which the existence of supernumerary fingers and toes occurred in five generations of one family. The deformities were transmitted through the material great-grandmother, the grandmother, and mother to the man who furnished the history, and whose children were the author's patients. A genealogical table is appended to the report of this case which shows which members of the family were affected, and which were unaffected with the deformities.

E. Noble Smith.

PATHOLOGY.

RECENT PAPERS.

1. Green.—The Origin of Cysts of the Kidney. (*New York Med. Record*, November.)
2. Arnold.—Hydatid Cyst of the Heart. (*Canadian Jour. of Med. Science.* Oct.)
3. Duguet.—Pulmonary Embolism as a Cause of Sudden Death in Phthisis. (*L'Union Méd.*, 1882, No. 130.)
4. Fraser and Logan. — Lipæmia in Diabetes. (*Edin. Med. Jour.*, Sept. 1882.)
5. Richet.— Micrococci in Marine Animals. (*Le Progrès Méd.*, No. 45, 1882.)
6. Ratherv.—Trichinosis in Man. (*Le Journ. de Méd.*, Nov. 4, 1882.)
7. Schultze.— Pseudo-Hypertrophy of the Muscles. (Virchow's *Archiv*, Band xc.)
8. Manero.—Tumour of the Heart. (*Gaceta de los Hospitales.*)

1. *Green on the Origin of Cysts of the Kidney.*—At a recent meeting of the New York Pathological Society (*New York Medical Record*, Oct. 1882, p. 470), Dr. Heitzmann stated that Dr. Jeannette B. Green, a pupil in his laboratory, had devoted special attention to chronic nephritis, and believed that he had succeeded in proving how cysts in the kidneys, such as seen with both catarrhal and croupous (parenchymatous) nephritis, are formed. 'Neither of the former views, that cysts arise from tufts or from uriniferous tubules, is satisfactory. Cysts are often found on the surface of the kidneys where there are no tufts, the same as in the pyramidal substance. In cirrhotic kidneys, we not unfrequently meet with capsules containing a shrivelled or compressed tuft and an albuminous liquid, but in no instance has dilatation of the capsule been observed sufficiently marked to allow the diagnosis of a cyst. Neither could we understand how, by simple dilatation, uriniferous tubules could reach the size that we observe in cysts. The way in which cysts are formed is as follows. First, the interstitial as well as the epithelial tissue of the tubules breaks down into inflammatory or medullary corpuscles, and thus an embryonal tissue is produced, sometimes occupying large territories of both the cortical and the pyramidal substance. Next, a transformation of the medullary into myxomatous tissue takes place, marked by the presence of a light, nearly homogeneous basis substance, which is traversed by nucleated bioplastic strings. In further growth these delicate strings perish, and a cavity is formed filled with an albuminous liquid. Around the cavity delicate fibrous connective tissue is developed, the inner surface of the wall of the cyst being lined with flat epithelia. From all evidence, those medullary corpuscles that have sprung from former epithelia of the uriniferous tubules are the only ones fit for a transformation into, first, a myxomatous tissue, and later, by liquefaction, into cysts. From what we have seen in kidneys, ovaries, and in the skin, we would consider this manner of formation of cysts as the only one which occurs. As to cysts of the liver, experience is too limited for a positive statement; there are good authorities alleging that from bile-ducts, by simple dilatation, cysts may originate.' [This description closely agrees with that given by me, *v. Path. Soc. Trans.*, 1880, 'The Histology of Granular Kidney'.—*Rep.*

2. *Arnold on Hydatid Cyst of the Heart.*—Dr. Arnold reports (*Canadian Journal of Medical Science*, October 1882) the case of a young man, aged 21, who had been subject to fainting. The heart's action was energetic, but the pulsations regular and normal. There were a cyanotic condition of the skin, without true respiratory embarrassment, a general and confluent urticaria, and a manifest tendency to algidity. The necropsy discovered three hydatid cysts at the apex of the left lung; in the pulmonary artery were numerous free hydatids of all sizes, and still more hydatids in the right ventricle. In the right auricle was a cystic tumour, semi-collapsed, with an enlarged slit-like opening toward the tricuspid orifice, and filled with hydatids. The liver and spleen contained no cysts.

3. *Duguet on Pulmonary Embolism as a Cause of Sudden Death in Phthisis.*—M. Duguet (*L'Union Médicale*, No. 130, 1882) reports a case of sudden death during the course of phthisis, in which he found a tough non-adherent clot obstructing the branch of the pulmonary artery supplying the left lower lobe. No source for the embolus could be found in the vena cava or iliac veins, but in the right profunda femoris vein there was a clot about two inches long, which occluded only partially the lumen of the vessel. At its upper end it was irregularly torn. It is notable that there was no œdema of the leg, nor had the patient complained of any pain.

4. *Fraser and Logan on Lipæmia in Diabetes.*—Dr. T. R. Fraser and Dr. J. R. Logan report (*Ed. Med. Jour.*, Sept. 1882) a case of diabetes in a patient aged 35, who was under observation some months, and finally died comatose. The blood was examined shortly before death, and was found to look white and to contain a large quantity of fat. The *post mortem* examination showed fatty blood, with white masses of blood-clot in the coronary arteries, vessels of the omentum, etc. The viscera possessed an acetone-like odour. Under the microscope the vessels of the liver 'were filled with normal blood-elements, along with other unusual constituents, consisting of fat and albumen in the form of granules'. In the lungs 'the capillaries were found in a state of dilatation and intense congestion. In some parts the red cells were seen closely packed, so as to be distorted in their shape, but their colour was well preserved. In other parts of the vessels a translucent substance, generally in the form of minute globules pressed together, and a few granules, were seen.' The urine examined after death had a marked acetone odour,

contained about one-seventh of albumen, but less sugar and urea than at any time during the life of the patient. Albumen had been present during life, but only in traces. There is no reference to the ferric chloride reaction. The white masses in the coronary arteries and mesenteric vessels are called 'embola', but without any obvious reason. The description of the microscopical appearances of the pulmonary vessels is vague, but apparently no microscopic fat embola were found. In their explanation of the death, the authors consider that the fat obstructed the circulation, causing congestion of the lungs and brain; hence the dyspnœa and coma, these effects being also partly due perhaps to the 'defective nutrition,' the 'accumulation of effete matter,' and the 'presence of acetone'.

5. *Richet on Micrococci in Marine Animals.*—M. Richet (Sociéte de Biologie, *Le Prog. Méd.*, No. 45, 1882) has found micrococci in the stomachs of certain marine fish, and says that sea-water is a favourable medium for their development. M. Malassez reminded the society that M. Pouchet long ago found bacteria in the white corpuscles of apparently healthy fish.

6. *Rathery on Trichinosis in Man.*—M. Rathery, at the Société Médush des Hôpitaux (*Le Journal de Méd.*, Nov. 4, 1882), described the case of a man who had numerous subcutaneous nodules of the size of peas, situated exclusively on the supra-diaphragmatic parts of the body. On excising one of these tumours, it turned out to be a trichinosis cyst. The patient had never suffered from any general or local symptoms of trichinosis.

7. *Schultze on Pseudo-Hypertrophy of the Muscles.*—Professor Schultze of Heidelberg (Virchow's *Archiv*, Band xc, Heft 1) criticises Pekelharing's description of the changes met with in the spinal cord of a case of pseudo-hypertrophy of the muscles (*ib.*, Band lxxxix), and declares that his sections of the cord are quite normal, and the particulars mentioned by him are visible in the cords of perfectly healthy people. These were diminished sharpness of contour of the anterior and inner ganglion cells as compared with the central ones, and loss of ganglion cells on the left side as compared with the right, the central canal occluded, and a number of nuclei gathered round it, a vessel which passed from the anterior spinal vein into the cord, enlargement of the vessels of the grey matter, and poorness of the anterior and median parts of the anterior horns in cells, and the absence of cells entirely in one section of the dorsal cord. Schultze maintains that this disease has nothing to do with the spinal cord, but that it is disease of development, and in support of this view he quotes the negative results of the examination of the cord by Nieryon, Charcot, Cohnheim, Brieger, and himself, and to the concomitant aberrations often met with in these cases. Many are idiots; Drummond and Bramwell found congenital anomalies of the cords in their cases, Gowers found a congenital tumour in the spinal canal. Schultze's view is that held by Dr. Gowers. ROBERT SAUNDBY, M.D.

8. *Manero on a Tumour of the Heart.*—Dr. Manero reports, in the *Gaceta de los Hospitales* of Valencia, an interesting case of malignant tumour springing from the cardiac substance, and protruding as a pulsating swelling through the walls of the chest. The patient was, at the time of his death, aged 51. The first indications of disease appeared four years previously, in the form of constant lacerating pain in the precordial region, without obvious physical signs; in about a year a bulging of the precordial region was noticed, with increased pulsation, attributed to dilatation of the ventricle, and this steadily increased, with increasing pain and gradual emaciation. When seen by Dr. Manero, there was a firm pulsating tumour in the precordial region, about the size of a well-developed virgin breast; it was very painful to touch; the skin over it was healthy. On auscultation of the tumour the normal heart-sounds were heard exaggerated, but not otherwise altered. The pain suffered is described as intense: it seems to have been of the character of that of angina pectoris, and was attended by constant formication in the left shoulder and upper extremity. Death occurred after the patient had been under observation some months, during which time the tumour had steadily grown, without at all involving the skin. No diagnosis seems to have been made during life. On *post mortem* examination, underneath the pectoral muscles, which were themselves healthy, the chest wall was found to be bulged forwards. (The exact state of the ribs is not given.) On removing the front of the thorax, the lower and front part of the pericardium was found to be the cause of the thoracic bulging, which is described as forming a hernia through the walls of the chest, an oval opening being caused by erosion of the third, fourth, and fifth costal cartilages, with portions of the corresponding ribs and sternum. Within this hernial sac of the pericardium, the greater portion of the heart was found enormously enlarged, apparently in all its cavities, and presenting on section the appearance of a new growth, with the aspect of a melanotic sarcoma, in consistence for the most part like that of a sebaceous tumour crossed by pigmented bars and lines, and having numerous large and small pigmented deposits. The growth appeared to be highly vascular. The valves, columnæ carneæ, openings, etc., are said to have been hardly distinguishable. It is not stated how much, if any, of the normal heart-structure was left; neither is mention made of any microscopic examination. The latter omission is a very unfortunate one, for such a general invasion of the cardiac substance by sarcoma as that described by Dr. Manero must be extremely rare. WALTER PYE.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1. BRIEL, M. O.—A Case of Labour complicated with Presence of Echinococcus in the Uterine Wall, and Douglas' Pouch. (*Vratch*, 1882, No. 10, pp. 150-2.)

2. BRIEL.—Two Cases of Pregnancy with Unruptured Hymen. (*Vratsch.*)

3. TEPLIASHIN.—Intractable Vomiting in Pregnancy. (*St. Petersburg Med. Woch.*)

4. JENNINGS. — Intravenous Injection for Severe Hæmorrhage. (*Lancet*, Sept., p. 436.)

1. *Briel on a Case of Labour Complicated with Echinococcus of the Uterus and Douglas's Pouch.*—Dr. M. O. Briel, of Charkoff, reports the following (probably unique) case (*Vratch*, 1882, No. 10). A primipara, aged 22, was brought to Professor Lazarevich's clinic on the fourth day after labour pains had commenced and the membranes ruptured. The examination revealed that the fœtal head was immovably impacted between the pubic arch and a firm, tense, diffuse tumour, which occupied the posterior wall of the vaginal portion of the uterus. De-

livery of the fœtus, which was dead, could be accomplished only after perforation of the head and craniocleasm. It became now evident that Douglas's pouch was filled with a round elastic tumour as large as a man's fist, intimately connected with the posterior uterine wall. The first six days after labour passed quite usually; on the seventh day the puerperal discharge ceased, and rigor and rise of temperature (104 Fahr.) with uterine pain, followed. Two hours later, there escaped from the vagina a semi-transparent cyst as large as a child's head, containing fluid which shewed the presence of succinic acid and chloride of sodium, and, under the microscope, numerous hooklets. In short, the cyst proved to be that of an echinococcus, which on its internal surface presented many secondary cysts enclosing scolices. A finger introduced into the cervix detected an aperture at its posterior wall, with firm cartilaginous edge, and penetrated into a cavity behind the womb. This cavity was subdivided by incomplete membranous septa into several compartments, enclosing an offensive ichorous fluid with free cysts, the size of which varied from a pea to a pigeon's or a hen's egg. In the course of the next week, the patient daily discharged several more cysts with shreds of the maternal echinococcus-cyst. Then all the symptoms (pain, discharge, fever, etc.) disappeared, and a few days later the patient left the hospital, being all but well. The course of the phenomena in this case was evidently this: development of the echinococcus within Douglas's pouch; the formation of a common capsule of connective tissue in consequence of reactive inflammation of the peritoneum; adhesion of the cyst with the uterine walls, and atrophy of the latter under pressure from the growing tumour; necrosis of the parts under the prolonged pressure of the impacted fœtal head; and eventually perforation of the cyst. V. Idelson, M.D.

2. *Briel on Two Cases of Pregnancy with Unruptured Hymen.*—Dr. Briel of Charkoff describes, in the *Vratsch*, the case of a girl, aged 18, from Little Russia, suspected of being pregnant. All the signs of pregnancy were found, and the outline of the fœtus could readily be detected on palpation; the heart-sounds were very distinct. The hymen was intact, excepting a very minute orifice; on exploration by the surgeon it was torn in two places. Delivery followed a few hours after this examination. The *Journal of the Charkoff Gynæcological Clinique*, for 1877, contains a report of a similar case, where abortion at the sixth month followed four days after complete incision of the hymen by a surgeon. Dr. Briel states that an unruptured hymen in pregnancy is very often observed among the peasantry of Little Russia, where morality is very low, but the fear of illegitimate offspring, as a result of complete connection, much dreaded.

3. *Tepliashin on Intractable Vomiting in Pregnancy.*— Dr. Tepliashin (*St. Petersburg Med. Wochenschr.*) recently attended a sickly anæmic woman, 25 years old, during her fifth pregnancy. In the third month, constant vomiting occurred, and caused serious exhaustion. Considerable abrasion of the external os was detected on examination; this was healed in a month by the application of solutions of sulphate of copper increased from 10 to 25 per cent. The vomiting, however, did not cease. The entire cervix and the os was then freely smeared with solid sulphate of copper; violent sickness followed for three days, then it ceased, the patient's appetite returned, and she rapidly regained health and strength. Alban Doran.

4. *Jennings on Intravenous Injection for Severe Hæmorrhage.*—In the *Lancet* for September, p. 436, Mr. Egerton Jennings records a case of severe *ante partum* hæmorrhage in a woman who was nearly at term, and was first seen two hours after the commencement of the bleeding. On examination the os was found fairly dilated, the membranes were unruptured, the edge of the placenta could be felt just within the os, and the right shoulder was presenting. Blood was still flowing freely. Mr. Jennings injected subcutaneously a drachm of brandy and two grains of sclerotic acid, corrected the malpresentation by bringing down the left foot, and employed steady kneading of the abdomen. An hour later, the patient appearing moribund, an intravenous injection of chloride of sodium and other salts, two drachms of alcohol, and water to twenty ounces, was administered, which immediately revived her, and this was followed by the injection of another grain of sclerotic acid. The delivery took place half an hour later without any further operative procedures. Mr. Jennings without doubt saved the patient's life, and brought a difficult labour to a satisfactory termination by the saline alcoholic intravenous injection, which is more practical, less alarming in its procedure, and attended with less risk than the injection of blood. Richard Neale, M.D.

SYPHILOGRAPHY.

RECENT PAPERS.

1. Bulkley.—The Malignity of Syphilis; with an Analysis of 450 cases of the Disease. (*Trans. of the Med. Soc. of the State of New York*, 1882.)

2. Diday.—Druggists' Treatment of Gonorrhœa. (*Lyon Méd.*, No. 18, 1882.)

3. Lewin.— On Gummata, peculiar as regard Seat, Hardness, and Course. (*Charité Annalen*, vii Jahrg. 1882.)

4. Semon.—On some rare Manifestations of Syphilis in the Larynx and Trachea. (*Lancet*, April 1, 8, 15; May 13; June 3, 1882.)

5. Caramitti —Cases of Syphilitic Sore on the Face. (*Giorn. Ital. delle Mal. e Ven. della Pelle*, June 1882.)

6. Otis, F. N.—Acute Syphilis: a Clinical Lecture. (*New York Med. Rec.*, July 8, 1882.)

7. Turner.—On the Etymology of the word Syphilis. (*Annales de Derm. et de Syph.*, July 1882.)

8. Widerhofer.—On Syphilis in Children. (*Allgem. Wiener Med. Zeitung.*, No. 29, 1882.)

9. Cheyne, Watson.—The Abortive Treatment of Gonorrhœa. (*Lancet*, August 5, 12, 1882.)

10. Ryley.—The Abortive Treatment of Gonorrhœa. (*Lancet*, Aug. 12, 1882.)

11. Martineau.—The Evolution of Syphilis. (*La France Méd.*, Aug. 19, 1882.)

12. Martineau.—On the Subcutaneous Injection of Ammoniated Mercurialised Peptone in Syphilis. (*L'Union Méd.*, Aug. 19, 1882.)

13. Battersby.—The Variety and Differential Diagnosis of Venereal Sores. (*Lancet*, Sept. 2, 1882.)

14. Streatfeild. — Syphilitic Inflammation of the Lacrymal Gland. (*Brit. Med. Jour.*, Sept. 30, 1882.)

15. Streatfeild.—Syphilitic Chancre at the Inner Canthus. (*Ibid.*)

16. Robinson, F.—Syphilitic Inoculation by Tattooing. (*Ibid.*)

17. Disguised Syphilis. (*Philad. Med. and Surg. Rep.*, Sept. 30, 1882.)

18. Bader.— The Treatment of Gonorrhœal Ophthalmia. (*Lancet*, Oct. 14, 1882.)

1. *Bulkley on the Malignity of Syphilis.*—Dr. L. D. Bulkley states (*Trans. of the Med. Soc. of the State of New York*, 1882), in a paper which contains a table of 450 cases of syphilis, that he employs the term 'malignity' to express the ultimately harmful, or even destructive, tendencies of syphilis under certain circumstances, and in contradistinction to the term 'benignity', which has been applied to syphilis by others, notably by Dr. C. L. Dana. The author protests against regarding syphilis as a benign disease in any sense of the word; in fact, he considers it hardly second to any but phthisis in its influence on the life, health, and happiness of the human race. Of the cases tabulated, 300 occurred among 1,072 miscellaneous skin-cases in hospital practice, and 150 among about 2,500 cases of skin-disease and syphilis in private practice. Many of the patients suffered severely from affections of the skin and other parts; and the author states that he can also readily call to mind between half a dozen and a dozen cases in private practice where serious deformity of the nose occurred.

2. *Diday on Druggists' Treatment of Gonorrhœa.*—In this paper, M. Diday protests (*Lyon Méd.*, No. 18, 1882) against the treatment of gonorrhœa by druggists, his argument being that they always prescribe specifics (copaiba, cubebs, etc.) and injections much too early, and thus prolong the duration of the attack to more than twice its normal length. M. Diday exemplifies his meaning as follows. *Doctors' Treatment.*—A patient first notices discharge on April 25, and comes to the doctor on May 1. The treatment should be: From May 1 to June 7, diluents, etc.; June 7 to 21, direct antiblennorrhagic treatment. Duration about 50 days. *Druggists' Treatment.*—May 1 to 8, diluents; May 8 to June 21, injections and specific drugs internally, with no good results; June 21 to July 20, again diluents; July 21 to August 14, antiblennorrhagic remedies in large doses. Duration, 105 days.

3. *Lewin on Gummata, peculiar as regards Seat, Hardness, and Course.*—Professor Lewin of Berlin relates (*Charité Annalen*, vii Jahrg. 1882) three cases in which syphilitic persons had tumours in the palms of the hands, which he considered to be gummata. In the first case, that of a man aged 45, who had previously been under Lewin's care for syphilitic affections of the pharynx and larynx, three swellings appeared several years after contagion, on the right palm, and, at a later period, a swelling on the second phalanx of the thumb. These swellings, as well as another near the internal condyle of the left humerus, were still present when the man was again seen in 1881, ten years after contagion. All of them were diagnosed by the author to be gummata. Subcutaneous injections of mercury, under which the earlier symptoms had subsided, were prescribed; but, after a month, there was little change in the tumours. After an interval, inunction of one drachm of mercurial ointment daily was tried, and this also failed to benefit. After a further interval, iodide of potassium was given in a daily dose of thirty grains, gradually increased to forty-five grains. Under this treatment, the swellings began sensibly to diminish, some to one-half and others to a quarter of their original size. No further particulars are given. In the second case, a man, aged 30, noticed, five years after contagion, two swellings in his right palm; and soon afterwards a tumour near the left olecranon. Later still, another swelling appeared near the last; and, finally, a fifth tumour appeared in the left palm. All these swellings were present when the patient, who also had been treated by the author for his earlier symptoms, returned to consult him; and there was, in addition, a swelling, of the size of a hen's egg, over the second cervical vertebra. Nothing is said about the treatment or termination of this case. In the third case, that of a man aged 30, nine years after contracting syphilis, two tumours, about the size of a hazel-nut, appeared in the right palm, and one in the left palm. The swellings were almost as hard as cartilage. There was another swelling near the internal condyle of the left humerus. Under iodide of potassium, the swellings became somewhat less hard, but did not diminish in size. The further history was not known. The author, in the latter part of his paper, enters at considerable length into the diagnosis of gummata from other swellings.

8. *Widerhofer on Syphilis in Children.*—In some clinical remarks published in the *Allgem. Wien Med. Zeitung*, No. 29, 1882, Dr. Widerhofer reminds his class that a child may be (1) born with signs of syphilis, or (2) born dead, or (3) may only show signs of disease during the second or third month after birth. Children born with syphilides show only the papular or pustular forms. Those in whom signs do not appear for several weeks, usually have the macular form, and this usually developes during the second month. In most cases, swelling of the nasal mucous membrane is the first sign of inherited syphilis; the child becomes pale and sleeps badly, and then, some days later, the macular syphilide appears. The spots are most numerous on the face, forehead, outer aspects of the extremities, and on the buttocks. Papules often appear among the maculæ. The pustular is the gravest form of syphilide; it is usually present at birth. When it is limited to the palms and soles, it is called syphilitic pemphigus. In the diagnosis of a syphilitic rash, polymorphism is the most valuable sign. The swelling of the nasal mucous membrane is also a sign of great diagnostic value. As regards the sequelæ of syphilis, a syphilitic child, as a rule, become rickety, and hydrocephalus often follows. The child's nutrition, also, is affected generally; hence the tendency to rickets. Paralysis and lesions of the cellular tissue may also occur, and, after the first year, 'scrofulous' affections. The glandular system is but slightly affected during the early months, and changes in the glands do not occur until the child is a year old. Abscess of the thymus is very rare. The author himself has seen only one case; the child in that instance lived thirty-six hours; but, in five other cases within his knowledge, the children were all born dead. The prognosis of inherited syphilis is favourable as regards life when no signs are present at birth; but much depends on proper management of the diet.

11. *Martineau on the Evolution of Syphilis.*—In considering the usual course of syphilis, and the various causes which influence it, or, as the author puts it, which render it 'abnormal', M. Martineau mentions (*La France Méd.*, Aug. 19, 1882) the patient's constitution, hygiene, and climate. The two former of these are the most important; a hot or cold climate, as far as mere temperature is concerned, having little or no influence. M. Martineau concludes that the chief causes of 'abnormal' syphilis are unfavourable hygienic conditions, the existence of previous diathetic disease, *e.g.*, scrofula or tuberculosis, and cachexia produced by malaria or alcoholism.

12. *Martineau on the Subcutaneous Injection of Ammoniated Mercurialised Peptone in Syphilis.*—In a recent communication to the Société Médicale des

Hôpitaux (*L'Union Méd.*, No. 113, 1882). M. Martineau, Physician to Lourcine Hospital, relates the conclusions at which he has arrived after fourteen months' experience of the treatment of syphilis by subcutaneous injection of Delpech's neutral solution of mercurialised peptone. The number of patients thus treated was about 600, on whom 11,000 injections were carried out. From this extensive series of cases, M. Martineau has found (see LONDON MEDICAL RECORD, Feb. 1882, p. 47), that, provided the solution be absolutely neutral, that the needle be fine and very sharp, and that the injection be made in the dorsal region, there is (1) no acute pain, (2) no phlegmon, abscess, or eschar (even in a case of diabetes no local trouble occurred). (3.) Mercurial stomatitis hardly ever occurs, unless the buccal surface be previously unhealthy. (4) Gastro-intestinal derangement is never produced. (5) The hypodermic injection of mercury is more efficient, more energetic, and more rapid in its action than any other method of administration. With especial reference to these last points, M. Martineau made the following experiments upon about 100 patients in the same hospital, and as far as possible under the same hygienic and other conditions. One-third of these hundred patients were treated by the subcutaneous injection of 5 milligrammes (about one-twelfth of a grain) of corrosive sublimate; one-third by an internal dose of mercurialised peptone, representing the same quantity of sublimate; and the remainder of the number by inunction of 5 grammes (about 75 grains) of mercurial ointment. The results were as follows. In the women treated by subcutaneous injection, the number of the red blood-corpuscles, which, before treatment, had been from two to two and a half millions, increased in eight days to from four to five and a half millions (the healthy standard). The body-weight also increased in the same time from two to eleven pounds, and the chlorides and urea in the urine were also increased. In the patients to whom the mercury was given by the stomach, from twelve to nineteen days elapsed before the number of red blood-cells increased beyond two millions. The weight also increased more slowly than in the former class. In the patients treated by inunction, increase in the number of blood-cells was manifest in a period which varied between eight and fourteen days: but the standard reached was never so high as in those treated by injection. The body-weight also increased more slowly. Thus, the author concludes that the action of mercury, when injected subcutaneously, is not only more rapid, but also more complete than when introduced by the stomach or by inunction. In syphilitic diseases of the eye, M. Galezowski recommends the injection of cyanide of mercury, in preference to mercurialised peptone. In M. Martineau's experience, however, both iritis and irido-choroiditis rapidly recover under the latter.

14. *Streatfeild on Syphilitic Inflammation of the Lacrymal Gland.*—Mr. Streatfeild reports (*Brit. Med. Jour.*, Sept. 30, 1882) the following case. A man, aged 25, came to the Moorfields hospital because of inability to open his left eye properly. At the outer and upper part of the left orbit, in the situation of the lacrymal gland, a firm, flat, but somewhat nodular swelling could be felt through the drooping lid. The eye itself and the bones of the orbit were unaffected. At the inner canthus of the right eye, but unconnected with the sac or canaliculi, was a red brawny swelling as large as a pea. The patient had also a papulo-scaly syphilide on his forehead, but denied having had any venereal sore. The man's own account was that the trouble in the left eye began five or six weeks before he came to the hospital, and that the swelling in the corner of the right eye appeared two weeks later. Mr. Streatfeild diagnosed syphilitic enlargement of the left lacrymal gland; the swelling at the canthus of the right eye he considered to be a mucous tubercle. Neither lesion ever caused any discharge or pain, and both disappeared under mercury.

17. *On Disguised Syphilis.*—In an editorial article on this subject in the *Med. and Surg. Rep.*, Sept. 30, 1882, the importance of remembering that syphilis is not of necessity a venereal disease is insisted on; and in illustration, a case is related of a lady who, when two months pregnant, received into her family a young female relation who had been brought up in Germany. This relation was suffering from an eruption on the scalp, which was dressed by the lady, who subsequently noticed that a pin-scratch on her finger became inflamed and angry-looking, and in a short time a nut-like swelling appeared on the inner aspect of the elbow. Afterwards she began to lose flesh; her appetite failed, the throat became sore, she suffered from headache and debility, and albumen appeared in the urine. The patient quickly recovered under biniodide of mercury and iodide of potassium.

18. *Bader on the Treatment of Gonorrhœal Ophthalmia.*—Mr. Bader (*Lancet*, Oct. 14, 1882) reports three cases which further illustrate the success of a mode of treatment advocated by him in 1880. (See LONDON MEDICAL RECORD, Feb. 1881.) The method consists in the application of an ointment composed of 1 grain of red oxide of mercury, one-fifth of a grain of daturin or atropin, and one ounce of vaseline. About two drachms of this ointment are injected beneath the upper eyelid twice a day by means of a glass syringe made for the purpose by Krohne and Sesemann. The ointment escapes, generally with some pus, at the inner canthus. No pain is caused if gentleness be used. Both eyes are to be kept bound up with lint smeared with the ointment. All the cases were severe ones, and the result in all was most favourable. In the first, the cornea was smooth, and only a small nebula of opacity remained; in the second, corneal opacity was barely noticeable; in the third, a case of double ophthalmia, the eyes recovered perfectly, both corneæ being quite clear. ARTHUR COOPER.

PSYCHIATRY.

RECENT PAPERS.

1. ROUSSEAU.—The Effects of Hæmorrhage in the Paracentral Lobe. (*L'Encéphale*, Dec. 1881.)

2. BAILLARGER, J.—Note on an Alteration of the Brain, characterised by Separation of the Grey Matter from the White Substance of the Convolutions. (*Annales Médico-Psychol.*, Jan. 1882.)

3. FOVILLE, ACH.—Note on Megalomania, or Partial Lypemania, with Predominance of Grandiose Delirium. (*Ibid.*)

4. DOUTREBENTE.—'Folie à Double Forme,' Multiple Attacks at unequal and sometimes very long Intervals. (*Ibid.*, March 1882.)

5. TAGUET.—Intermittent Delirium. (*Ibid.*)

6. ROUSSEAU.—Intermittent Fever of Emotional Origin. (*Ibid.*)

7. PARANT.—On the Pathogeny of Hallucinations, *à propos* of a Case of Voluntary Hallucinations in an Insane Patient. (*Ann. Méd. Psychol.*, May 1882.)

8. Cullerre.—Paralytic Dementia in its Relations to Arterial Atheroma and Yellow Softening. (*Ibid.*)

9. Ritti.—Local Asphyxia of the Extremities in the Period of Depression of 'Folie à Double Forme.' (*Ibid.*, July 1882.)

10. Rey.—Contribution to the Pathological Anatomy of General Paralysis. (*Ibid.*)

11. Duterque.—The Ophthalmoscopic Appearances in General Paralysis. (*Ibid.*, Sept. 1882.)

12. Brunet.—Treatment and Curability of Pericerebritis. (*Ibid.*, Nov. 1882.)

13 Rousseau.—The Relation of Aphasia to Insanity. (*Ibid.*)

14. Claus.—The Etiological and Therapeutic Relationships between Diseases of Women and Insanity. (*Der Irrenfreund*, 1882, No. 6.)

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1. *Rousseau on the Effect of Hæmorrhage in the Paracentral Lobe.*—A case is related (*L'Encéphale*, Dec. 1881) of which the following is a summary. First attack of cerebral softening, right hemiplegia, dementia. Second attack, left hemiplegia with right ptosis; paracentral hæmorrhage, hypochondria, hallucinations, lypemaniacal delirium. At the necropsy, areas of softening were found in each hemisphere to account for the hemiplegic attacks; there existed also in the centre of the left paracentral lobe a comparatively recent hæmorrhage, of the size of a small hazel-nut, and to this the author ascribes a marked change in the patient's mental condition, which took place shortly before the patient's death. The dement, who previously manifested complete torpor; he became anxious, thought much abou this health, considered it so bad as to desire his death, and indifference, appeared to awake from his intellectual at times expressed his wishes and desires. The consecutive delirium was characterised by definite form and continuity, not resembling in any way that resulting from anæmia or congestion (*phlogose*) of the cerebrum; it was of such a kind that if the patient had survived longer he would have presented an example of delusional insanity (*folie*) superseding primary dementia. [From the notes of the case which were taken from day to day, it would appear that this change in mental condition developed itself very gradually; this somewhat militates against the view that it was the result of a definite hæmorrhagic lesion.—*Rep.*] In support of his view, Rousseau mentions Luys' observations of hyperæmia and hypertrophy of the paracentral lobe in the subjects of hallucinations and chronic hypochondriasis. Luys considers the anatomical lesion to be the substratum of the mental pathological condition. Rousseau considers that the hæmorrhage in his case was only moderately destructive, but above all irritative in its action upon the cerebral tissues.

2. *Baillarger on Separation of the Grey and White Matter of the Convolutions.*—The author cites (*Ann. Méd.-Psychol.*, Jan. 1882) four cases of general paralysis of the insane, in which this lesion was observed. It usually occurs in places where the pia mater is adherent to the cortex, and is associated with softening and atrophy of the grey matter; the underlying white substance is generally firm or indurated, but also atrophied. The way in which this lesion becomes manifest on examining the brain is as follows. When the adherent membranes are torn from the surface of the convolutions, they bring with them the whole of the grey cortical layers, not only that covering the gyri, but also that contained in the sulci. Viewed from their under surface, the inverted convolutions are glistening and of a bluish white tint. When this condition is in an earlier stage of development, it may escape notice. The raising of the membranes fails to make it evident; but it may be discovered by direct examination or by directing a stream of water upon the line of demarcation between the grey and white matter. The author believes that the change which leads to this condition takes place chiefly in the deepest layer of the cortex, viz., the seventh layer, described by Foville senior, and Gratiolet. This layer, being white, and semi-transparent from its tenuity, will account for the whitish-grey colour of the under surface of the separated convolutions. Most, if not all, of the patients in which this condition has been observed, presented a predominance of paralysis on the side opposite to that on which the lesion was noted. The change appears to be most common on the posterior lobes of the cerebrum. Baillarger published a single example of this decortication in 1855. Two cases are recorded in M. Calmeil's book on inflammatory diseases of the brain, in which it is evident that the condition now described was present.

3. *Foville on Megalomania.*—In this paper (*Ann. Méd.-Psychol.*, Jan. 1882) Dr. Foville enunciates and illustrates the view, first published by him twelve years ago, that megalomania, once known as monomania of pride, is in truth the latest stage of development of partial lypemania with predominance of delusions of persecution. It is found, upon talking with most chronic lunatics with fixed grandiose delusions as to their wealth, rank, and power, that they are not happy in their imaginary greatness, but believe themselves to be persecuted on account of it. Further inquiry shows that the large delusions are a secondary development and have come about in the following manner. A patient is primarily affected by hallucinations of hearing and false perceptions of a painful nature; he believes himself to be the object of an organised persecution; in searching about for a reason for this, he eventually hits upon the idea that he is really some great personage, who has been surreptitiously changed at birth, and that others have an object in persecuting him and keeping him shut up lest his just claims should be recognised. The frequency of this sequence of symptoms was brought by Dr. Foville before the International Medical Congress in 1881, and is now generally admitted by alienists. It is an interesting fact, that a large proportion of patients affected by this form of insanity are illegitimate children.

6. *Rousseau on Intermittent Fever of Emotional Origin.*—Dr. Rousseau, of the Auxerre Asylum, relates three cases in the *Ann. Méd.-Psychol.* for March 1882. The first was originally observed by him in 1864, and was published in a memoir on intermittent insanity; it occurred in the clinique of Dr. Renaudin, who is reported to have said that he had seen several other similar cases. The man affected was a railway servant who received a severe shock through a railway accident for which he was partly responsible. This emotion gave rise to an intermittent fever, which was afterwards replaced by intermittent insanity, with stages of heat and sweating occurring during each period of intermittence. Quinine in large doses subdued the febrile element of the disease; and the insanity, being freed from the substratum on which it appeared to rest, gradually disappeared. The second case is quoted from the work of Dr. Macario, thus: 'I remember a woman who was attacked by a quartan fever under the influence of a strong emotion. This fever, after having resisted the action of all febrifuges, disappeared under the influence of an emotion similar to that

which had produced it.' The third case was observed by the author in 1880, and is given with greater detail; in this case, the first febrile attack supervened immediately after great emotional disturbance; the patient had always lived in a locality where intermittent fevers are unknown.

8. *Cullerre on Arterial Atheroma and Yellow Softening in General Paralysis.*—From a study of nine cases which are recorded in his article (*Ann. Méd.-Psychol.*, May 1882), Dr. Cullerre infers that there is a form of paralytic dementia which is characterised by the co-existence of the ordinary lesions of meningo-encephalitis with those of cerebral senility, atheroma, miliary aneurisms, and patches of yellow softening. It is usually developed at an advanced age, follows a somewhat slow course, and may terminate rapidly in a congestive attack, accompanied by acute maniacal excitement. It may be diagnosed during life by the aid of the sphygmograph and by auscultation of the aorta. The mental and bodily symptoms are those at once of senile dementia and of general paralysis. Conversely, some senile dements are subject to congestive attacks, which may lead to inflammation of the cortical layers of the brain, and produce at least the macroscopic lesions of general paralysis. This process of fluxion may, very probably in certain cases, abate to such an extent that the symptoms of general paralysis may entirely disappear, leaving the case to end as one of ordinary organic dementia.

10. *Rey on the Pathological Anatomy of General Paralysis.*—Dr. Rey has found (*Ann. Méd.-Psychol.*, July 1882), in fifteen brains of general paralytics, separation of the cortex from the underlying white matter, as described by M. Baillarger (see No. 2 of this report). Dr. Rey relates six of his observations in detail. It is remarkable that he should have found this lesion existing only in the frontal lobes, whereas the former writer described it as most common on the posterior lobes of the cerebrum.

11. *Duterque on Ophthalmoscopic Lesions in General Paralysis.*—The appearances in twenty-two cases are described (*Ann. Méd.-Psychol.*, Sept. 1882), and the following conclusions are deduced. The changes seen in the fundus of the eye belong to three distinct periods in one continuous degenerative process. The first period is characterised by inequality of the pupils, papillary congestion, and varicose dilatation of the retinal veins and arteries. The second period is that of papillary and circumpapillary œdema; the disc is always indistinct and often clouded by exudations, of which the thickness is directly proportionate to the length of time during which the disease has existed. The third period is that of atrophy with its characteristic appearances. If to these are added choroidal atrophy, the presence of retinal hæmorrhages, and the production of small or large granulations of high refracting power upon the retina and the choroid, all the ophthalmoscopic changes seen in general paralysis will have been noticed.

12. *Brunet on the Treatment and Cure of Pericerebritis.*—The treatment (*Ann. Méd.-Psychol.*, Nov. 1882) recommended as likely not only to lead to recovery but also to the prevention of relapse, is blood-letting, daily prolonged baths, with cold water to the head, and the administration of tartrated antimony and bromide of potassium in large doses. Two cases thus treated are related in detail; apparent recovery has lasted in one of these cases for two years, and the other suffered no relapse until his death seventeen years afterwards from cirrhosis of the liver. The author recommends the continuance of antiphlogistic treatment for some time after apparent recovery has taken place; he remarks that alcoholic pericerebritis is more easily recovered from than that which is due to moral causes, the lesions being often less extensive and less intense.

13. *Rousseau on Aphasia in Insanity.*—Mental alienation (*Ann. Méd.-Psychol.*, Nov. 1882) and aphasia very rarely co-exist; the explanation of this varies according to which of the conditions named is primarily developed. The lesion which produces aphasia sometimes leaves the intelligence intact, but more frequently it produces a weakness as distinguished from a perversion of the mental faculties. A sane aphasic patient may be attacked by insanity; but as the number of such persons is extremely small the chances of this occurring are very slight. The insane develop with the lapse of time such a degree of cerebral inertia that destructive cerebral lesions, when not too extensive, most frequently exist without producing corresponding symptoms in the functions of intellect and motility. It is for this reason that they seem to be free from the true aphasia which depends upon a moderate loss of substance, while they fall under the ordinary rules with regard to the other affections of language which are the inevitable consequences of more extensive cerebral destruction.

14. *Claus on Diseases of Women as a Cause of Insanity.*—Nine illustrative cases are related (*Irrenfreund*, No. 6, 1882), and the opinion, expressed that the timely and successful treatment of uterine disease may often prevent an attack of insanity, or cure it, if it have already arisen.

C. S. W. Cobbold, M.D.

TOXICOLOGY AND FORENSIC MEDICINE.

RECENT PAPERS.

1. Hebra.—Phosphorus Poisoning. (*Boston Med. and Surg. Journ.*, vol. cvii, p. 357.)
2. Casali.—Ptomaines. (*Annali Univ. di Med. e Chir., Fasc.* 781, 1882.)
3. Mangini.—Tests for Alkaloids. (*The Analyst*, 1882, p. 180.)
4. Biefel and Poleck.—Charcoal-Fumes: Coal-Gas. (*Zeitschr. für Biol*, Band xvi, p. 279.)
5. Danillo.—Phosphorus. (*Jour. de Méd. de Paris*, Sept. 9. 1882.)
6. Lobelia Poisoning. (*Jour. de Méd. de Paris*, Sept. 9, 1882.)
7. De Poncy and Livon.—Antimony. (*La France Méd.*, 1882, p. 568.)
8. Zillner.—Death from Burning. (*Vierteljahrsschrift für Gerichtl. Med*, xxxvii, pp. 65, 237.)
9. Erman.—Formation of Adipocere. (*Ibid.*, p. 51.)
10. Morache and Eyssautier.—Hæmin Crystals. (*Ann. d'Hyg.*, 1881, tome v, p. 17; *Gaz. Méd. de Paris*, 1882, p. 538.)
11. Cazeneuve, Lacassagne, and Chapuis.—Expert Procedure in Cases of Suspected Poisoning. (*Lyon. Méd.*, 1882, July 23, Oct. 29, and Nov. 26; *Ann. d'Hyg.*, 1882, tome vii, p. 314.)

1. *Hebra on Poisoning by Phosphorus.*—A highly interesting case of phosphorus poisoning is reported from the practice of Hebra of Vienna (*Boston Med. and Surg. Jour.*, vol. cvii, p. 357). The patient was a shoemaker's apprentice, and of previous good health. For six days before coming under observation, he had noticed isolated red spots on various

parts of his body, soon becoming bluish, and increasing in number. These were easily recognised as hæmorrhages, and affected all parts of the body, including the conjunctiva and other mucous membranes. The gums were slightly swollen. The urine contained blood. The resemblance of the case to one of purpura hæmorrhagica was recognised, but no hypothesis of its causation could be formed. In two days, slight paralysis of the right side of the face was noticed, and a difficulty in pronouncing certain letters; but the mind remained clear, and locomotion and the special senses were unimpaired. The paralytic symptoms rapidly increased; vomiting, complete aphasia, and then coma set in, ending in death next day. The necropsy confirmed the diagnosis of hæmorrhages, including one in the middle of the left optic thalamus, and towards the surface of the left parietal lobe. Capillary hæmorrhages were numerous throughout all the tissues of the body, and in the bronchi, pericardium, myocardium, and all the mucous and serous surfaces, as well as in the muscles of the extremities. A microscopical examination showed the pathological changes met with in phosphorus poisoning. In the apopleptic region of the brain, granules of fat and other evidences of extensive fatty degeneration and infiltration were found; and the same condition existed in other parts of the brain in different degrees. The small cerebral arteries and capillaries exhibited the same changes. Fatty degeneration was found in the most distant parts of the body. Deposits of fat-granules were found in the cells of the liver, and in the epithelium of the urethra. In all the muscles, voluntary and involuntary, deposits of fat-granules were found. Further investigation showed that it is the custom among the shoemakers' apprentices in Vienna to put the heads of matches into the bread and beer of their fellow apprentices; and this patient, who was particularly fond of operating upon his fellows, had no doubt thus fallen a victim to his own folly.

2. *Casali on Ptomaines.*—Casali (*Ann. Univ. di Med. e Chir.*, fasc. 781, 1882; *L'Union Méd.*, 1882, p. 501) asserts that the ptomaines are not comparable to the true alkaloids, but are rather of the nature of amides. The ptomaines are distinguished from the true alkaloids (1) by their mode of formation, (2) by their instability under the influence of heat, oxygen, or sulphuric acid, (3) by their inaptitude to form insoluble chloro-platinates and chloro-aurates. They approach nearer to their amides in constitution (1) by their mode of formation from albuminoids, (2) by their double chemical functions, (3) by their powerful reducing action, especially upon gold salts, (4) by the fact that they give off nitrogen when oxidised, *e.g.*, by nitric acid and by potassium nitrate.

3. *Tests for Alkaloids.*—Dragendorff recommended the employment of potassio-bismuthous iodide as one of the most delicate general reagents for the detection of the alkaloids, as it gives orange-coloured precipitates with most of them. Mangini (*Analyst*, 1882, p. 180) prepares the reagent in a slightly different manner, by mixing 3 parts of potassium iodide with 16 parts of liquid bismuth iodide, and 3 parts of hydrochloric acid. This reagent acts as follows, with the chief vegetable alkaloids. *Strychnia:* a light-yellow precipitate becoming dark-yellow after some time; the supernatant liquid remains clear. *Brucia:* Precipitated at first in filaments which ultimately settle down, of a golden-yellow colour, becoming paler when left at rest for some time. *Morphia:* a reddish-yellow precipitate, which agglomerates at the bottom; the liquid remains clear, and the precipitate disappears after a few days if the whole is left at rest, the liquid becoming canary yellow. *Atropin:* Precipitated at first in filaments but gradually settling down in the form of a reddish-yellow powder, which, if left at rest, becomes canary-yellow, and dissolves after some time, colouring the liquid golden-yellow. *Aconitin:* Precipitated at first in flocks, but suddenly forms at the bottom a chrome-yellow pulverulent precipitate, which does not change colour when left at rest, whereas the liquid becomes yellow.

4. *Biefel and Poleck on Charcoal-Fumes: Coal Gas.*—R. Biefel and T. Poleck have re-investigated poisoning by these agents (*Zeitschr. fur Biologie*, Band xvi, p. 279). They found that charcoal-fumes contained on an average (eight analyses) carbonic oxide and carbonic acid in the relative proportions of one to twenty. The carbonic oxide was the chief toxic agent. With animals placed in an atmosphere gradually contaminated with charcoal fumes, severe symptoms of poisoning manifested themselves when the oxide reached 0.44 per cent., and death supervened when the gas had risen to 0.62 per cent. With coal-gas the conditions were altered, and 1.5 to 1.94 per cent. of carbonic oxide was reached before the air exercised a fatal effect upon rabbits; the absence of carbonic acid, formed at the expense of the oxygen, appearing to materially modify the toxic influence of carbonic oxide. The effects of carbonic oxide and carbonic acid are thus compared by the authors. Carbonic acid produced varying degrees of coma; dyspnœa, gradually passing into asphyxia; rarely violent tetanic convulsions, and general tremors; gradual paralysis of the lungs. After death the blood was dark red, the lungs were dilated, congested, and œdematous, the brain moderately hyperæmic, and the right heart filled with dark blood. Oxide of carbon, on the other hand, produced no coma, muscular weakness and transitory paresis of the extremities, no dyspnœa, convulsive expiratory movements, and general convulsions. The *post mortem* lesions were: cerebral hyperæmia, and altered red blood in the meninges; alveolar emphysema of the lungs, without œdema; the heart full of liquid blood. The blood contained air bubbles, and there was subcutaneous emphysema.

5. *Danillo on Phosphorus.*—Danillo asserts that toxic doses of phosphorus produce either central or diffused myelitis (*Jour. de Méd. de Paris*, Sept. 9, 1882), and that, in acute phosphorus poisoning, hæmorrhages are formed in the central nervous system. Large doses of phosphorus produce central myelitis and extravasations along the whole length of the spinal cord; whilst smaller doses produce diffused myelitis, involving both the white and grey matter. The morbid nervous phenomena observed in phosphorus poisoning may be referred to one or other of these forms of myelitis.

6. *Lobelia.*—A fatal case is recorded (*Jour. de Méd. de Paris*, Sept. 9, 1882) of poisoning by lobelia, taken in the form of an emetic.

7. *Caillol de Poncy and Livon on Antimony.*—MM. Caillol de Poncy and Livon (*La France Médicale*, 1882, p. 568), in investigating the effects of the continued ingestion of antimony, administered to a cat ten grains of white oxide of antimony in divided doses. It succumbed to a cachexia, commencing with diarrhœa, and terminating in marasmus. The lungs, liver, and mesenteric glands showed similar changes to those produced by arsenic (*Compt. Rend.*, June 9, 1879; May 15, 1882).

8. *Zillner on Death from Burning.* — Zillner (*Viertelj. für Gerichtl. Med.*, Band xxxvii, pp. 65, 237) has published more extended reports of the examination made by him of the corpses of those who perished in the burning of the Ring Theatre in 1881 (see LONDON MEDICAL RECORD, May 15, 1882). All the bodies, even those which exhibited no external marks of injury, were more or less covered with a thick layer of soot. The upper extremities were strongly abducted from the shoulder, the elbows were bent, and the forearms pronated, so that the backs of the hands lay near the face. A fighting attitude was thus simulated in some cases. This was due to shrivelling, and consequent shortening of the muscular fibres, by the action of heat. The large cavities, and more especially that of the abdomen, were often burst, even in bodies not otherwise much injured, and the bowels protruded. In females, the tympanic state of the abdomen frequently simulated a state of pregnancy. The blood exhibited every grade of consistency, from the normal, through the viscid state, up to a completely friable dry mass, in which last condition the blood-pigment was found to be in an insoluble state. Occasionally, the blood formed a dull lustrous mass in the uninjured heart and blood-vessels. Examined spectroscopically, the blood always showed the bands of carbonic-oxide-hæmoglobin, even in the case of bodies which had remained buried beneath rubbish for a month. In all the bodies which were incinerated, the heart was found in diastole, and rigidly distended with clotted blood. This sometimes gave rise to a suspicion of concentric hypertrophy; but the thin walls of the organ at once revealed the nature of the appearance. The bones exhibited every stage of burning, from a simple burning up to complete calcination. The jaw was mostly firmly closed. The muscles, where the skin was unbroken, had a boiled appearance; but, where they were charred, the odour was that of smoked meat. The drying up of the flesh, and its permeation by pyrogenous products, obviously retarded the advent of putrefaction. In the eye, the application of lower grades of temperature manifested itself as a turbidity of the cornea, and complete opacity of the lens, giving the appearance of cataract. The larynx, trachea, and nostrils, were often filled with foreign material from the stomach, perhaps due to the vomiting excited by carbonic oxide. The urinary bladder was often full of urine, even when the abdomen had burst. Occasionally, where the bladder was empty of urine it contained a gelatinous substance with embedded blood-corpuscles. This was found by E. Ludwig to consist of gelatin, probably derived from the connective tissue by the action of heat. Similar gelatinous masses were found in the uterus in some cases; and this organ was found to be very resistant to the action of heat.

9. *Erman on the Formation of Adipocere.*—Erman has investigated the production of adipocere (*Viertelj. für Gerichtl. Med.*, Band xxxvii, p. 51), and arrives at the following singular conclusions. 1. Contrary to the received opinion, the change of albuminous matters, and specially of the muscular tissues, into fat, does not take place during putrefaction in water. 2. The fatty masses, which are met with in the so-called adipocerous bodies, are the residues of the fat present in the body during life, altered by imbibition.

10. *Morache and Eyssautier on Hæmin Crystals.* — MM. Morache and Eyssautier (*Ann. d'Hyg.*, 1881, tome v, p. 17; *Gaz. Méd. de Paris*, 1882, p. 538) modify the ordinary process for the production of hæmin crystals from blood-stains. The blood-stain is macerated with water in a tube closed at one end, and terminating in a point at the other. By a shake, a little of the liquid is projected into a single drop of a half-per-cent. solution of common salt, previously placed upon a glass slide. Four or five drops of diluted acetic acid (1:4) are added; and the liquid is concentrated by heat. When the whole is reduced to a syrupy consistence, a few drops of glacial acetic acid are added and the liquid is again concentrated, taking care to apply the heat at the edge of the liquid, so as to prevent its extension. When sufficiently evaporated, a cover-glass is placed upon the syrupy liquid, and it is then examined under the microscope, when hæmin crystals may be seen to form during cooling. These are much larger than when prepared in the ordinary manner.

11. *Expert Procedure in Cases of Suspected Poisoning.*—A controversy has been carried on (*Lyon Méd.*, 1882, July 23, Oct. 29, and Nov. 26; and *Ann. d'Hyg.*, 1882, p. 314) as to the best method of treating viscera to be set aside for medico-legal analysis. M. Cazeneuve advises the addition of alcohol, to prevent putrefaction. To this MM. Lacassagne and Chapuis object. They assert that, according to the researches of Gautier and Etard, there is no danger of the formation of toxic ptomaines till after the lapse of six days, when the primary acid decomposition has passed into an alkaline stage, with splitting of the albuminoids; and that the ordinary vegetable alkaloids are capable of resisting decomposition for a considerable period. THOS. STEVENSON, M.D.

MEDICAL CHEMISTRY.

RECENT PAPERS.

1. HOFMEISTER.—Peptone in the Blood. (*Zeitschr. für Physiol. Chemie*, Band v.)

2. DEICHMÜLLER and TOLLENS.—Acetone in Diabetic Urine. (Liebig's *Annalen*, No. ccix.)

3. SMITH, W. G.—Protacatechuic Acid in the Urine. (*Dublin Journal of Med. Sciences*, June 1882.)

4. VON JAKSCH.—Acetonuria. (*Zeitschr. für Physiol. Chem.*, Band vi, Heft 6.)

5. SAUNDBY.—Indican in the Urine. (*Med. Times and Gaz.*, Aug. 19.)

6. OZERETZKOVSKY, A. T.—Examination of Urine of Scorbutic Patients. (*Vratch*, 1882, No. 10, pp. 152-5.)

1. *Hofmeister on Peptone in the Blood.* — Hofmeister (*Zeitschr. für Physiol. Chem.*, Band v, p. 127) found that after injecting small quantities (0.3 to 0.6 gramme) of peptone dissolved in 10 to 20 cubic centimètres of water, four-fifths could be detected in the urine. With larger quantities (1.07 to 9.6 grammes), the blood-pressure falls and the secretion of urine ceases, but the peptone disappears from the blood, and a fifth part can be found in the kidney. Such injections give rise to dulness, sleepiness, and feebleness, in the animals experimented on. He thinks the explanation of the different results of peptone, injected into the blood or absorbed from the subcutaneous tissue to the physiological absorption from the intestines, is that the lymphoid cells, which, during digestion, fill the intestinal mucous membrane, take up the peptone, and thus act for the albuminous nutrition of the organism, as the red corpuscles do for respiration.

2. *Deichmuller and Tollens on Acetone in Diabetic Urine.*—A. Deichmüller (Liebig's *Annalen*, No.

ccix, p. 22) failed to obtain alcohol from 40 litres of diabetic urine; in a series of determinations, acetone was present in quantity varying from .093 to .147 per cent. As the ferric chloride reaction points to the presence of a compound allied to ethyl-aceto-acetate, and, as no alcohol was separable from the distillate, he concludes that the compound is not ethyl-aceto-acetate, but free aceto-acetic acid. Tollens (Liebig's *Annalen*, No. ccix, p. 30) confirms this view, adding the fact that, when diabetic urine is shaken with ether, there is only a trace of the ferric chloride reaction with the ether extract; when, however, he added to the urine one tenth of its volume of a one to one and a half per cent. solution of ethyl-aceto-acetate, the latter was readily extracted by ether.

3. *Smith on Protocatechuic Acid in the Urine.*—Dr. Walter G. Smith (*Dublin Jour. of Med. Science*, June 1882) has recorded the case of a little girl, apparently in perfect health, who passed urine which darkened on exposure to the atmosphere. On investigation, this appeared to be due to the presence of protocatechuic acid, one of the 'aromatic' series, and the characteristic reaction of which is green with ferric chloride, reddened by addition of an alkali.

4. *Von Jaksch on Acetonuria.*—Von Jaksch has a paper (*Zeitschr. für Physiol. Chemie*, Band vi, Heft 6) on the chemical tests for acetone in the urine. He uses Lieben's method by distilling the urine, and treating the distillate with a solution of iodine in iodide of potassium and caustic soda, when, if acetone be present, iodoform is thrown down. He has been able to detect a small quantity of acetone in normal urine, but in fever urine the quantity is large; in non-febrile affections the quantity is generally small, the exceptions he has observed being some cases of carcinoma, hydrophobia, so-called acetonuria, and certain cases of diabetes mellitus. In some rare cases of diabetes, a large quantity of acetone may be distilled from the urine, which, at the same time, gives the ferric chloride reaction. This ferric chloride reaction is probably due to the presence of acetic acid, which, by distillation, yields acetone; and hence the richness of these urines in acetone. Increased acetonuria and ferric chloride reaction are also found in some cases of measles, scarlatina, pneumonia, etc. Both phenomena stand in some sort of connection, but increased acetonuria and acetic acid in the urine are by no means identical. R. SAUNDBY, M.D.

5. *Saundbyon Indican in the Urine.*—Dr. Saundby (*Med. Times and Gaz.*, Aug. 19, 1882) draws attention to two remarkable cases of a brother and sister, in whom the urine is permanently dark-coloured from the presence of indican. The brother has an enormous spleen, and is subject to attacks of paroxysmal hæmoglobinuria. (Further details of the cases are to be found in the *Med. Times and Gaz.*, Feb. 4, 1882.)

6. *Ozeretzkovsky on the Urine of Scorbutic Patients.*—Dr. A. T. Ozeretzkovsky (*Vratch*, 1882, No. 10), examined the urine in sixteen cases of scurvy, all being uncomplicated and past the febrile stage, and arrived at results which, on the whole, are at variance with those furnished by the author's predecessors (Duchek, Hohlbeck, Garrod, Ralfe, etc.). His results were these. 1. The daily quantity of the urine, which at the stage of full development of the disease oscillates about the healthy standard (1,500 cubic centimètres), invariably rises within the period of convalescence. 2. The specific gravity of the urine, reaching 1,020 to 1,028 at the height of the disease, sinks to 1,017 to 1,012 at the stage of convalescence. 3. The highest figures for sulphuric and phosphoric acids are observed at the height of the disease, side by side with increased excretion of urea. 4. The amount of chloride of sodium is invariably increased during the stage of convalescence. 5. The proportion of salts of potassium decidedly is not diminished; on the contrary, admitting the accuracy of the figures given by Duchek for healthy urine (according to Duchek, the proportion between potassic and sodic salts in normal urine is 1·12), it is invariably increased. 6. The amount of urea is, without a single exception, considerably increased in the course of scurvy, the highest figures being observed in the severest cases; as invariably it falls during convalescence, in spite of increase in the weight of the patients and in the excretion of chloride of sodium. From these observations, the author concludes that in the system of scorbutic patients there is an increased metamorphosis of albuminous matters; he thinks it very possible that the increase of urea depends upon extensive destruction of the red copuscles in the scorbutic blood.

V. IDELSON, M.D.

REVIEWS.

BALNEOLOGICAL NOTICES.

1. *Guide aux Villes d'Eaux, etc.* Par Dr. MACÉ. Crown 8vo, pp. 896. 1881.
2. *The Baths of Tarasp Schuls.* By Dr. J. PERNISCH. 18mo, pp. 155. 1881.
3. *Rapport sur les Eaux d'Aix (Savoie).* Par Dr. L. BLANC. 8vo, pp. 46. 1881.
4. *Schlangenbad and its Waters.* By Dr. R. WOLF. 12mo, pp. 48. 1882.
5. *Karlsbad Waters.* By Dr. B. HOFMEISTER. 12mo pp. 20. 1882.
6. *Terme Fornello-Fontano in Ischia.* By Dr. E. FAZIO. 8vo, pp. 54. 1882.
7. *The Baths of Kreuth.* By Dr. MAY. 12mo, pp. 32.
8. *Sea-Bathing and Mineral Waters of Scarborough.* By Dr. ALEXANDER. 8vo, pp. 131. 1882.
9. *Hydro-thérapie à Champel.* By P. GLATZ. 8vo, pp. 52. 1882.
10. *L'Asthme à Mont Dore.* Par D. E. EMOND. 8vo, pp. 24. 1882.
11. *Gout: Treatment at Royat.* By Dr. C. A. PETIT. 8vo, pp. 8. 1882.
12. *Skin-Diseases at Aix-la-Chapelle.* By Dr. SCHUMACHER, jun. 8vo, pp. 12. 1882.
13. *Die Behandlung des Chronischen Gelenk-rheumatismus.* By Dr. B. BRANDIS. 8vo, pp. 39. 1882.

1. We believe Dr. Macé's guide to be the last French general work on mineral waters. It differs from other guides, in the fact that Dr. Macé has only written the general portion of the book and a few notices of baths, while the bulk of the book is made up of accounts furnished of their waters by the medical men of the different stations. This system has its advantages and its disadvantages. On the whole, we think Dr. Macé would have done better, if he had moulded these accounts into one consistent whole—not allowing some of these monographs to exceed due proportion. Dr. Macé's accounts of any but French waters are not very satisfactory; his account

of English ones is very poor, and he informs us that the English watering places are resorted to not in summer but in winter. On the whole, a good deal of information is to be found respecting the present condition of French baths in this compact volume. The notices of sea-bathing places and of winter resorts do not call for any particular observation.

2. Dr. Pernisch gives a handy and useful account of the waters of Tarasp, of which the English have of late years found out the advantages.

3. Dr. Blanc gives an account of the latest improvements in the well-managed baths of Aix-les-Bains, which at this moment enjoy inordinate popularity with the English.

4, 5. The little treatises on Schlangenbad and Carlsbad are written for English visitors, and require no special notice.

6. The treatise of Dr. Fazio gives an account of the re-establishment of the baths at the port of Ischia. Their waters are essentially the same as those of the springs most resorted to at Casa Miniola. The whole island is rich in valuable thermal springs.

7. The popular little work on Kreuth introduces us to that delightful sylvan station in the Bavarian Alps, which, although it has the drawback of being somewhat rainy, lies 3,000 feet above the sea, and has good brine-baths, and a sulphur-spring.

8. Dr. Alexander has produced a new edition of his work on Scarborough. It is full of good advice on sea-bathing, and gives an ample account of the mineral waters.

9. Dr. Glatz of Champel, near Geneva, continues his work on hydro-therapeutics, and now discusses the symptoms and treatment of albuminuria, and of Bright's disease.

10, 11. Asthma is often relieved at Mont Dore, and gout at Royat, but there is nothing in the *brochures* of Dr. Emond and Dr. Petit to detain us.

12. Dr. Schumacher advocates winter treatment at Aix-la-Chapelle. The skin-affections which he has treated most successfully, are chronic eczema, particularly e. squamosum, furunculosis, psoriasis, prurigo, and pruritus cutaneus, also old ulcers of the skin. He even thinks that he benefited two cases of anæsthetic leprosy.

13. Dr. Brandis of Aix-la-Chapelle contributes what the French call a serious research, on chronic rheumatism of the joints, which is well worth study. He considers the advantages of change of climate, of thermal and of surgical treatment, assigning its proper value to each; but what he recommends most highly, is the use of the salicylate of soda, which he has found most efficacious in large doses. He thus sums up. 1. The dislike of the patient to the medicine must be overcome. 2. Its unpleasant after-effects diminish, as the patient becomes accustomed to it. 3. The medicine does no harm, even if its use be continued for years. 4. The remedy loses its efficacy with time, and its employment should therefore be occasionally intermitted. Dr. Brandis could never satisfy himself that either citric acid or lithium was of any use; but he found some advantage from cod-liver oil, especially among the poorer classes. Dr. Brandis gives useful advice respecting the internal and external use of the waters of Aix and of Burtscheid. J. Macpherson, M.D.

Pestilentia in Nummis. Geschichte der Grossen Volkskrankheiten in Numismatischen Documenten. Ein Beitrag zur Geschichte der Medecin und der Cultur. Von Dr. L. Pfeiffer und C. Ruland. Tübingen. 1882.

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This work is an excellent contribution to the history of the great disasters which have befallen the European race. It deals with the medals commemorating events which have happened chiefly during the past three or four centuries. The material is arranged throughout in chronological order, and is presented to the reader in an agreeable form. The amount of useful and interesting information embodied in this volume is very great, and does the authors much credit. Numismatics is an enticing study to many, and a taste for such matters is one which grows with very little feeding. This may be partly due to the fact that the artistic is artfully interwoven with the historic, and each of these lends support to many other interesting inquiries, without in the least cloying the appetite with loathed satiety. In the prelude a concise account of the differentiation and dates of recognition of the various acute specific diseases is incorporated. Small-pox was accurately described by individual physicians in the eleventh and twelfth centuries, and has been only generally known since the sixteenth. Scarlet fever and measles were separated from small-pox in the sixteenth century, and from one another in 1627; but it was not till 1790 that Swedish official statistics heeded this information. Corresponding historical facts for the plague, black death, English sweat, typhus, typhoid, malaria, yellow fever, and cholera are given.

The first department of the book treats of the medals and coins which have been struck to preserve the memory of such events as famines, floods, comets, swarms of locusts, and years of plenty and rich harvest. We cannot do better than give a description of the kind of thing herein contained, and we select one of which the work gives a photograph. Commemorating the comet of 1618 a silver medal exists, with a diameter of a little more than an inch, on the obverse of which a coffin on a litter is represented (mantled in a pall figured with a cross), on which the helmet and breast-plate of a knight are resting, and by the side of which an open Bible leans. On the observer's left is a bare tree, and over this a large comet; the legend: 'A drawing of a comet'; the exergue: 'It is as a token'; on the reverse is 'God gives us the comet-star to teach us to better our lives', with the date 1618. Many of these jettons have very curious devices; the Corn-Jew medals are of this sort. On the obverse of two of these a man is figured, walking either to the left or right, carrying a sack of corn over the shoulder, from which the devil, perched on the sack, contrives to make the contents leak. The legend: 'Thou Corn-Jew'; exergue: 'Dear Times, 1694.' There are three medals illustrating hunger and cold in Holland, 1698; later, one recording a good harvest in Saxony, 1720; and yet again, another commemorating a plague of locusts in 1748. Altogether there is a word-picture of 219 medals in this portion, as well as nearly the same number in the second division of the work, which deals with the plague and pestilential diseases, and their prevention. It is not practicable to go

into these, and we must content ourselves with a bare outline. After a few specimens of Roman tokens, a good deal of space is spent on the Wittenberg plague-medals of the sixteenth century, which are divided into five types, according to the ornamentation and writing. Some have the legend running in a single circle, whilst in others this is arranged in two concentric rings, and so forth. A series of medals struck in Italy, Germany, and the Netherlands commemorates the scourges of the Thirty Years' war. The third portion of the book tells of the medals on inoculation and vaccination, and the coins struck in various countries with the object of promoting this latter practice. Under yellow fever two medals engraved in Barcelona in 1821 and 1870, are described. Cholera occupies the fifth section and seventeen pages with thirty-six medals and jettons. Much valuable statistical information is to be found here interposed between the numismatic portions, which are classified in accordance with the various European invasions of 1827-37, 1847-60, and so on. The last chapter deals with those diseases which are always in our midst, and which serve largely to swell the death-list (consumption, cancer, apoplexy, acute pulmonary inflammation). The excessive death-rate amongst children at all ages is a field in which Dr. Pfeiffer has laboured much, and this subject, together with the measures which have been advocated, tending to stem the ebb of deaths, concludes the volume, to which, however, a supplement with corrections, is added. Many facts relating to the origin and progress of foundling hospitals in the various Kingdoms are given in the last chapter. An index to the names of persons and places used in the descriptive portion of the book is all that can be desired; and the same can honestly be said of the thirty-six photographs, which greatly add to the value of this contribution to medicine and culture. ANGEL MONEY, M.D.

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which do not, however, play a lesser *rôle* in phonation. The influence the uvula exerts upon the resonance of the pharyngeal cavity, thus modifying the *timbre* and power of the voice, is very considerable, as may be seen by the various alterations in form and position it undergoes when the ascending scale is sung. Under the generic name of 'Hypermégalie Uvulaire', Dr. Labus discusses the various affections that lead to an increase in size of the uvula. In paralytic cases it may be normal in volume, form, and colour, and it is these cases which are deceptive ; for ordinarily the throat-mirror is kept in front of the uvula while asking the patient to pronounce the vowels *a* and *e*, etc., and thus prevents us from noticing that it is not making the proper contractions, but incomplete or intermittent ones, or is remaining completely pendant, or oscillating tremblingly. The caution to make the patient phonate while inspecting the mouth before introducing the mirror is an useful one. Its adoption as a matter of routine should obviate in most cases the overlooking of a paralytic affection of the uvula. We quite agree with Dr. Labus that excision of the uvula does not impair the quality of the voice ; but rather that it improves its clearness and purity, and its facility in producing high notes.

W. J. WALSHAM.

Leprosy in British Guiana: An Account of West Indian Leprosy. By JOHN D. HILLIS, F.R.C.S., M.R.I.A. London: J. and A. Churchill. 1881.

MR. HILLIS has written a book on leprosy, in which the symptoms and history of the disease are ably described, and has illustrated it by a number of well-executed plates, in which the changes produced by the malady in the appearance of the skin are very accurately portrayed. Two plates are devoted to the microscopic appearances observed in stained sections.

The work is evidently the result of much labour, and the author has not only been successful in giving an accurate description of the various forms of leprosy, but has added, in a condensed although clear and intelligible form, a summary of the opinions entertained regarding the nature of the disease by all the writers who have recently discussed the subject. The excellence of the coloured plates, and the careful analysis of the modern literature of leprosy, would have been alone sufficient to make the book a valuable addition to any medical library, even if its value had not been enhanced by analyses of cases and clinical histories drawn from the author's experience in the West Indies. Mr. Hillis has amassed a large amount of evidence derived from the records of contemporary writers, and from notes of 139 cases recorded by himself, which goes to show that the chief factor in the spread of leprosy is contact with the diseased. The only remedies which he has found useful in leprosy are chaulmoogra and gurjun oils. The gurjun oil is now alone used by him, and he believes that this drug may arrest the disease.

G. THIN, M.D.

Du Traitment des Fractures des Membres: Nouvelle Methode. Par V. RAOULT-DESLONGCHAMPS. Paris : J. B. Baillière et Fils. 1882.

DR. RAOULT-DESLONGCHAMPS advocates the treatment of fractures of the extremities by the following method. The injured limb having been bandaged and protected by wadding, splints made of laminated zinc are moulded to the parts laterally, and kept in position by means of circlets fastening with buckles. In an ordinary fracture, as of the leg, these splints are at once applied, and the patient is allowed to sit up in an arm-chair, from which a rod arises posteriorly, and supports a swing in front, for the injured limb to rest upon. The advantages claimed for the method are, that it does away with the horizontal posture, that the splints are cheap, light, and comfortable, and can readily be applied in time of war, or in an emergency.

The author does not clearly make out that the plan he strongly advocates is any improvement over a case composed of paste-board splints and common starch. Voluminous details are given of fractures of the pelvis and bones of the lower extremity, of the clavicle and bones of the upper extremity, treated by Dr. Raoult-Deslongchamps, in accordance with this plan, which seems to have led to satisfactory results. The author also suggests that a splint made of one piece of laminated zinc would prove of service in cases where the nasal bones have been broken.

T. F. CHAVASSE, M.D.

Die Tuberculose vom Standpunkt der Infectionslehre. Von J. COHNHEIM. Leipzig. 1881.

DR. COHNHEIM is a firm believer in the communicability of tubercle ; that it is an infectious as well as an infective disease ; and he is convinced that in the great majority of cases the reception *ab extra* of the 'germs' could be established. He urges that the greater frequency with which the lungs are attacked points to a poison gaining access by the respiratory passages, as would tubercle-cells from dried sputa, etc. ; while the fact that in young infants the bowels are almost always the first organs affected is easily explained if we suppose milk to be the vehicle in these cases. The identity of *perlsucht* with human tuberculosis has not, indeed, been as yet universally accepted, still less has it been proved to be a cause ; but when we consider the ease, nay, almost certainty, with which infants, nursed by tuberculous mothers, become themselves tuberculous, though in different organs, the presumption is well nigh irresistible. It is true that another class of cases, in which there is a primary deposit of tubercle in the bones, joints, or brain, are not so easily interpreted.

Acute miliary tuberculosis differs, in our author's opinion, from the slower process supervening in chronic pneumonia only in the rapidity with which the infective process extends itself, depending probably on special circumstances which further investigation may reveal.

The popular ideas of predisposition and heredity, Dr. Cohnheim accepts only with considerable qualification. That different persons exhibit different degrees of susceptibility, or of resistance to other infectious diseases, is well known ; and that apparently healthy members of a family in which cases have appeared should successively succumb, is not to be wondered at when we assume infection. There is much also that may be urged against the doctrine of heredity, while all that can be adduced in its favour is equally explicable by susceptibility or feeble resisting power, and direct infection by the mother's milk, or, later, by the respiration of an infected atmosphere ; and it is worthy of note that, however far gone in consumption the parents may be, the infant never exhibits tubercle at the time of birth as it does in the case of syphilis. The practical lessons to be drawn from this view of tuberculosis are obvious.

E. F. WILLOUGHBY, M.B.

Die Lehre vom Harn: Ein Handbuch für Studirende und Aerzte. Bearbeitet von Dr. E. SALKOWSKI und Dr. WILH. LEUBE. Berlin: Hirschwald. 1882.

On the Urine: A Handbook for Students and Medical Practitioners. By Dr. E. SALKOWSKI and Dr. WILH. LEUBE. Berlin: August. Hirschwald, 1882.

THIS manual is the most complete and recent work on the urine with which we are acquainted. It is written by two of the most eminent German authorities on the subject, each of whom has added much to the stores of knowledge accumulated in this department during the last quarter of a century. As a work of reference, especially in the details of chemical manipulation, in which our own text-books are far too meagre, this book deserves a place on the shelves of every physician. It does for the science of urinology what Wagner's manual has done for general pathology.

The chapter on albuminuria is an excellent one, though it was written before the appearance of Senator's monograph. The illustrations are not numerous, but are very good, and sufficient for most purposes. The authors necessarily treat of much that is still matter for controversy, and express their own views with clearness and vigour.

A very good *résumé* is given of the literature which has accumulated respecting acetonuria, and the substance giving the ferric chloride reaction. The latest chemical details are also to be found on the subjects of hæmoglobin, and indoxyl in the urine. In its clinical aspect, the book is not so good; it is everywhere evident that the conclusions of the laboratory are regarded as authoritative, however they may clash with clinical observations.

In this country, at least, the belief still remains, strongly established, that medicine is founded on observations made at the bedside and in the dead-house; and, while we admit the value of experimental studies in elucidating many obscure points, we are cautious in accepting them as the basis for practical rules, or anatomical facts. Though the German school is not without its imitators in this country, we do not think there is any strong indication that this wise principle is in any danger of being abandoned.

ROBERT SAUNDBY, M.D.

Syphilis. By V. CORNIL. Translated, with notes and additions by J. H. C. SIMES, M.D., and J. W. WHITE, M.D. of Philadelphia. Pp. 461. London: H. Kimpton. 1882.

THE lectures on syphilis, of which the present volume contains a translation, were delivered by M. Cornil at the Lourcine Hospital in 1878, and published in Paris in 1879. They do not deal with the subject of syphilis as a whole, but rather with its pathological anatomy, especially the minute anatomy of the various changes produced by the disease in all its stages, from the initial lesion to the gummy growth or syphiloma, as it affects the skin, the mucous membrane, the bones, and the various internal organs. Most of the specimens on which the author's observations were made were removed during life; and the microscopic appearances are well shown in the original by means of lithographic plates, in the translation by woodcuts. M. Cornil thus deals chiefly with those points on which most books on syphilis are deficient, and the value of his work is by this time sufficiently well-known and appreciated to render a further description of it unnecessary.

Besides translating the work into English, Drs. Simes and White have also made additions to the text—chiefly as regards clinical matters—which occupy about one-third of the present volume.

ARTHUR COOPER.

Lock Hospitals and Lock Wards in General Hospitals. By F. W. LOWNDES, M.R.C.S., Surgeon to the Liverpool Lock Hospital. 1882.

IN this pamphlet, Mr. Lowndes gives much valuable information respecting the various lock hospitals and lock wards in general hospitals in the United Kingdom, and shows how inadequate is the accommodation at present available for contagious diseases in proportion to the civil population. There are two great causes, says the author, of the languishing condition of our voluntary lock hospitals. One is a feeling of indifference on the part of the general public; the other is a fear that by supporting them an implied sanction is given to immorality. Mr. Lowndes' observations and statistics ought to have some effect in removing both these causes.

NEW INVENTIONS.

NEW HYDROCELE SYRINGE.

MESSRS. WRIGHT and Co. have recently carried out the instructions of Mr. Richard Davy, Surgeon to the Westminster Hospital, for simplifying the ordinary hydrocele syringe for iodine. The old syringe consists of eight or nine different pieces, which are liable to get out of order; and the nozzle fits only one cannula. The new syringe consists of three pieces only; the nozzle is made tapering, and is of glass, so as to fit any ordinarily sized cannula. The engraving

shows well the piston, the glass cylinder, and the metal cap. The new syringe can be cleaned with far greater ease than one of the old pattern. The price is also much less.

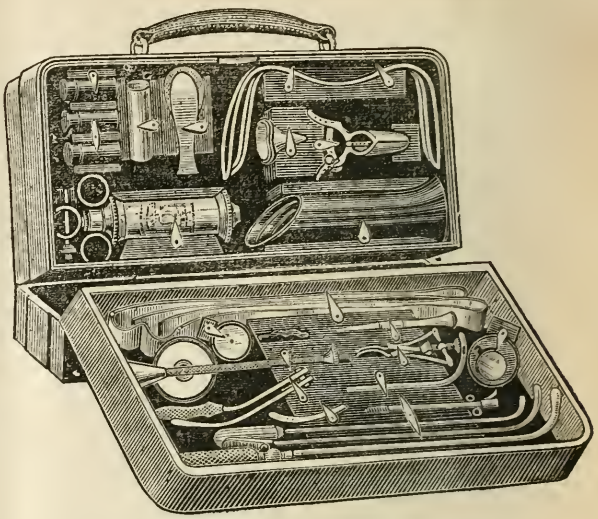
FORCEPS FOR REMOVING STARCHED OR GUM AND CHALK BANDAGES.

Mr. Davy has found that, in orthopædic practice, his dressers have constantly to remove bandages which have been temporarily stiffened with starch, or gum and chalk, or plaster. He has been dissatisfied with all scissors made for this purpose; and now he uses

the forceps shown here and a small saw: they are the most practically useful tools for the purpose. The forceps acts either as a cutting or a holding agent, and cannot get out of order by fair usage. To cut with this forceps, the bandage must be firmly grasped by the blades, and then a rotatory movement given to the wrist; the edge of the blades (right or left) crushes open the bandage.

DIAGNOSIS-CASE.

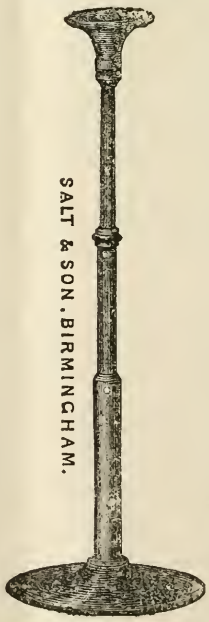
Mr. William Thomas writes in the *British Medical Journal* that, having, for some time, wished to have various mechanical aids to diagnosis in a portable form, he instructed Messrs. Salt and Son, surgical-instrument makers of Birmingham, to make a diagnosis-case, which they have done most ably and satisfactorily, and have produced an useful light case, containing nearly everything required for diagnostic purposes. The following is a list of the instruments, etc., included: Sims's uterine speculum, Fergusson's metal specula, bivalve rectum-speculum, metal ear-specula, nasal-speculum, Laycock's spatula, ear-syringe, urinometer, and trial-glass; three vulcanite boxes, containing cupric test, nitric acid, caustic potash, hermetically sealed; cystometer, spring measuring-tape, stethoscope, ophthalmoscope, exploring trocar, Simpson's sound, male and female catheter combined, exploring sound, Thompson's sound and searcher, and clinical thermometer. The case consists of two halves, and, when closed, forms a kind of portable reticule-case, as shown in the engraving; a reserve space is also made, as a receptacle for the storage of any addition the fancy of the individual practitioner may think desirable. The various instruments are securely fixed, each in position, and



the engraving gives a fair illustration of the case. Mr. Thomas considers the case worthy of the reputation of the firm by whom it has been manufactured, and believes that his professional brethren will be glad to know of such an useful adjunct to practice.

A NEW PORTABLE STETHOSCOPE.

The stethoscope, of which we give an engraving is



the most portable which has come under our notice. Its extreme length, when fully extended, is that of an ordinary stethoscope, viz., seven inches, whilst it admits of being closed respectively to five inches and a half, and three inches and three quarters; this is effected by two telescopic slides which lock at the limit of extension by a simple bayonet-catch at each point of junction, by a single and slight movement to the right, whether one or both tubes be employed. The ear-piece is removable, and the instrument can be conveniently carried in the waistcoat pocket. The tubes are made of aluminium, and the mounts of celluloid in various colours, as amber, tortoiseshell, and coral.

This stethoscope is made by Messrs. Salt and Son of Birmingham. In it the conduction of sound is excellent: the price is exceedingly moderate, and the appearance is very carefully brought up to an artistic standard.

DR. GALEZOWSKI'S OPHTHALMOSCOPE.

Dr. Galezowski has invented an ophthalmoscope with double focus, of which we append an illustration. The mirror B has a focus of 23 centimètres. In examining the inverted image, it is placed flat, and against the plate which covers the glasses. The mirror C has a focus of 8 centimètres, and is to be used for the erect image; in this case it is inclined either to right or to left by moving the two pivots at the ends of the supports, D, E. The inclination can be

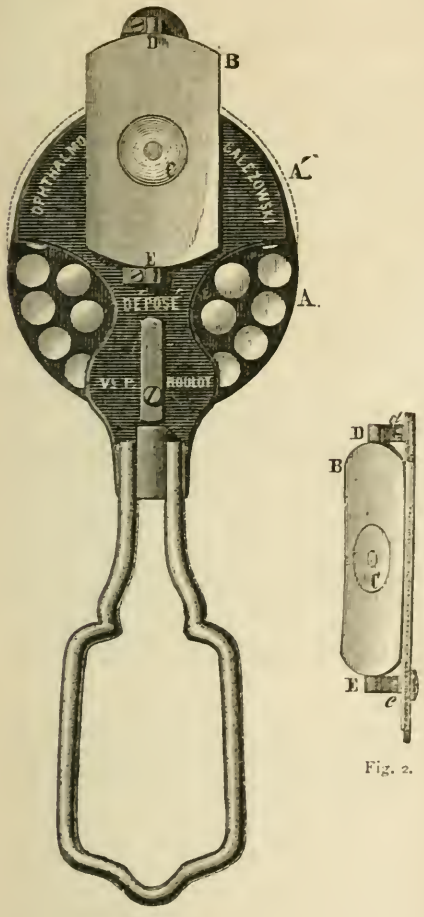


Fig. 1.

Fig. 2.

changed, which is a great advantage. The wheel carries two rows of glasses, of which the one at the periphery is the concave series; the other, at the centre, is the convex series. The observer brings forward one or the other of these series by turning the wheel, which occupies one of the two positions, A or A'. The jointed handle folds over the instrument, and forms a guard for the two mirrors. The illumination of the fundus of the eye with the inverted image requires a focus at least 25 centimètres in length; but, for the examination of the erect image, this mirror is not so convenient, for the rays of light are dispersed over the fundus oculi, and are consequently concentrated to a focus too far behind the retina. Mirrors with very short foci, such as those of Coccius, Parent, etc., give, on the contrary, a very bright light, which is concentrated on the retina itself. To combine the two conditions of illumination in the same mirror was the object which Dr. Galezowski proposed to attain by the construction of a new ophthalmoscope. He found by experiment that a very large opening might be made in the centre of the mirror, without sensibly disturbing the illumination in the case of the reversed image. In the same way, by placing in the centre of the ophthalmoscopic mirror with long focus, another small mirror with a short focus of 6 centimètres, the clearness of the inverted image is by no means compromised, and the erect image is much more distinctly illuminated than by the other mirrors. M. Galezowski's ophthalmoscope is useful for the definition of the different degrees of hypermetropia

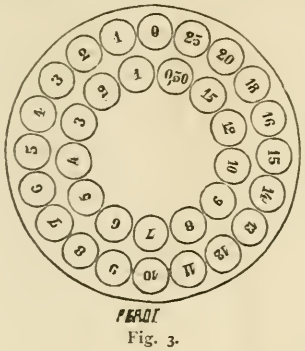


Fig. 3.

and myopia, and there is only one wheel, which contains the convex and concave glasses. The two systems of glasses are placed in two concentric circles, the concave glasses are situated at the periphery of the wheel, being numbered 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20; the convex glasses, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, are situated in the same wheel towards the centre. This wheel, by a simple sliding movement, shows in front of the opening of the mirror both series of glasses at the will of the observer. In examining the erect image, it is very advantageous to give the mirror an inclined position; this advantage has been obtained in this ophthalmoscope by a very simple mechanism, which allows it to be inclined a little more or less up to 35 degrees. This instrument, which is manufactured by M. Roulot, surgical instrument-maker of Paris, is very easy to manipulate, and the glasses may be cleaned without removal.

MISCELLANY.

The British Association.—The Council of the British Association have nominated Mr. A. G. Vernon Harcourt, M.A., F.R.S., to the office of General Secretary of the Association, in the room of the late Professor F. M. Balfour.

On the announcement in Russia that the course of medical instruction for women would be closed, a great meeting was held to protest against the measure, and a Moscow merchant offered to spend 200,000 roubles if the St. Petersburg authorities would undertake the management of the lectures.

Women Doctors in Spain.—*La Tribuna*, of Madrid, has a long account of the granting by the medical faculty of that city of a Degree of Medicine on Senorita Martina Casells Bellaspi. She is the first Spanish woman who has studied medicine and taken her degree. The paper speaks in warm terms of her as a lady who, in spite of much opposition and national prejudice, has won high

honours. Another Spanish lady is following in Senorita Casells' footsteps. Finding that the Valencian School of Medicine had closed its doors against her, she is now studying in Madrid, where she has met with a more friendly reception.

COLONIAL AND EXPORT TRADE EXHIBITION.—An exhibition bearing this title will be held at Amsterdam from May to October 1883, which will include the following classes devoted to medical and surgical curative appliances. Export exhibition: Group V.—Spectacles, eye-glasses, and other optical instruments. Group VI.—Medicines, mineral waters, chemicals, and drugs. Group VII.—Requisites and appliances for physics and chemistry for spectral analysis, polarisation, saccharometry, etc., for meteorology and electricity, and for seismography, surgical instruments and hospital necessaries, instruments for dentists, apparatuses for gymnastics, orthopædics, etc. All communications should be addressed to Dr. Thos. Stuart, Amsterdam, secretary to the export trade section of the Amsterdam Colonial and Export Trade Exhibition.

DETERMINATION OF IODINE IN THE URINE OF PERSONS UNDERGOING TREATMENT BY IODOFORM.—The extensive use of iodoform for surgical purposes at the present day, renders it desirable to have a suitable means of determining the amount of iodine excreted in the urine of patients undergoing the iodoform treatment. C. Bernbeck has obtained good results in the following way. Two hundred cubic centimètres of urine are made slightly alkaline with a solution of caustic potash; the whole is then evaporated to dryness, and the residue heated to redness to destroy all organic substances. The ash thus obtained is extracted with boiling alcohol, the extract filtered off and evaporated over a water bath. The residue is mixed with a few cubic centimètres of distilled water, a few drops of sulphuric acid, previously saturated with nitrous acid vapours are added, and the whole is then shaken up with a small quantity of carbon bisulphide. The presence of iodine gives rise to the formation of the well-known violet tinge in the carbon bisulphide; and, when it is present in anything more than mere traces, its amount may be determined by titration with a solution of palladious chloride of known strength.—*Pharm. Zeit.*, 1882, April 12th.

THE INDUCTION-PROBE AND PRESIDENT GARFIELD.—At the recent meeting of the American Association for the Advancement of Science, Professor Graham Bell delivered an address on the electrical experiments to determine the location of the bullet in the body of the late President Garfield, and described a completely successful form of induction-balance for the detection of metallic masses in the human body, described in the LONDON MEDICAL RECORD for Aug. 15, 1881. The lecturer recalled the experiments of last year on the wounded President; the results obtained were that the telephone gave a peculiar spluttering sound which, on the induction balance being passed over the person of the patient, suddenly increased in loudness when it rested on a particular spot. The apparatus was sensitive to the presence of a leaden bullet five inches from it. An area of sound was thus marked out, and the experimenters concluded that the bullet was within it, but subsequent examination proved this to be incorrect. In fact, the area of sound was produced by a steel spring mattress under the President's bed, which had been overlooked by the attendant physicians. The apparatus has been subsequently improved by imbedding the two movable coils in paraffin, and adjusting them to silence by a micrometer screw. With this instrument, a successful experiment was performed on the person of Colonel Clayton, who had for several years suffered from the presence of an Enfield bullet; and now the exact position of a bullet could, according to Professor Bell, be accurately told in any part of the human body.

THE POISONOUS PROPERTIES OF MUSHROOMS.—The deaths which are frequently reported from the consumption of supposed edible fungi render their question of their toxic qualities an important one. Professor Ponfick of Breslau has lately made experiments on the common mushroom, and the practical results obtained are interesting and valuable. It appears that all common mushrooms are poisonous—a fact not sufficiently understood—but cooking deprives them in a greater or less degree of their poisonous qualities. The repeated washing with cold water which they usually undergo to clean them takes away a portion of the poison, and boiling does the rest; but the water in which they have been boiled is highly poisonous, and should always be carefully disposed of. Experiments which Professor Ponfick made on dogs showed that if a dog ate one per cent. of its own weight of raw mushrooms it fell sick, but recovered; if it ate one and a half per cent. the poison had a more violent but not fatal effect, and if it ate two per cent. it was inevitably fatal. The water in which mushrooms had been boiled was far more poisonous than the raw mushrooms; while the mushrooms thus boiled could be taken without hurt to the amount of ten per cent. of the weight of the dog's body. Washing with cold water does not remove all the poison, so that mushrooms thus prepared were poisonous when taken in large quantities. Dried mushrooms are still dangerous for from twelve to twenty days, and also the water in which they have been boiled. They require to be dried for at least a whole month, and are really only safe after four months' drying. These are important facts to be borne in mind.

THE LECLANCHÉ PILE.—The death is announced, at the early age of 43 years, of a Frenchman whose name is known wherever electricity is used—George Leclanché. He was the inventor of the well-known Leclanché pile, whose use is probably more widespread than that of any other form of electrical generator. He quitted the service of the Eastern Railway Company about 1867 to devote himself to his researches on the peroxide of manganese piles. His first patent for the porous vase elements is dated 1867; in 1875 new patents were taken for his cylindrical agglomerated plates; in 1876-8 he perfected his new elements of movable agglomerated plates, at present those most generally in use. If the number of Leclanché's inventions has been small, their success has been as complete as could be wished. The inventor realised a large fortune, and the manufacture of the Leclanché cell is in itself an important Paris industry. On an average, 2,000 agglomerated plates are manufactured daily.

MICROSCOPISTS AT DINNER.—When the microscopists sat down to dinner, each one produced his compound oscillating microscope, and carefully examined every article of food. Excited shouts went up as new discoveries of metallic, vegetable, and sausage substances were discovered in the soup. An examination made of the water resulted in the discovery of such an enormous quantity of infusoria, mammalia, and pachydermata, that the microscopists unanimously refused to drink it. During the progress of the meal, much enthusiasm was aroused by the announcement of Professor White that he had discovered a trace of hair-pin in the beef-steak, thus upsetting the theory that the beef-steak of American hotels is a chemically pure carburet of sole-leather; and, at a later hour, Professor Black's assertion—based on a thorough microscopic examination—that he had discovered whortleberries in the whortleberry pudding, and wine in the wine sauce, led to a heated discussion, in the course of which thirty-eight microscopists declared that Professor Black was an ignorant and unprincipled pretender; and eleven others maintained that the Professor was acting in good faith, and that his discoveries could be accounted for on the theory that the waiter had given him, by mistake, a piece of whortleberry pudding made expressly for the landlord's private table.—*New York Times.*

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"New York Medical Journal," *August* 1880, Dr. F. Weir, *in Lecture delivered to the College of Physicians and Surgeons, New York.*

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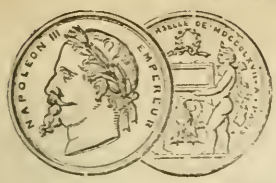

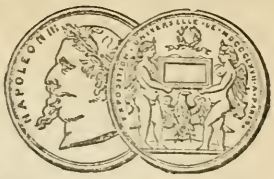

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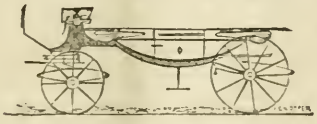

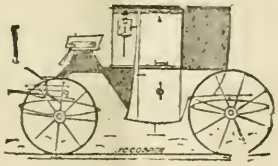

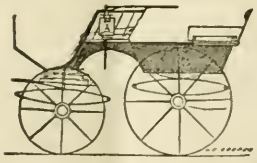

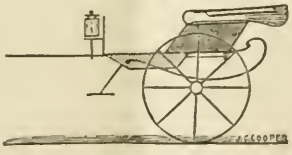

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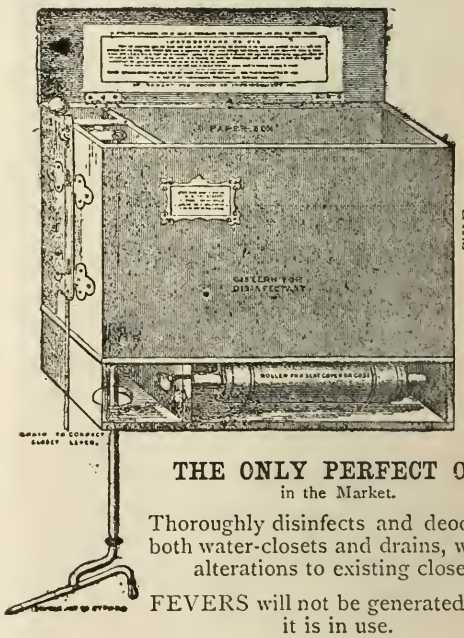

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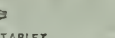

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Morphiæ Sulphas .... 1-3 grain.	Atropiæ Sulphas .. 1-100 grain.
Atropiæ Sulphas .... 1-120 grain.	Atropiæ Sulphas .... 1-150 grain.
Morphiæ Sulphas .... 1-4 grain.	Strychniæ Sulphas .. 1-60 grain.
Atropiæ Sulphas .... 1-150 grain.	Strychniæ Sulphas .. 1-100 grain.
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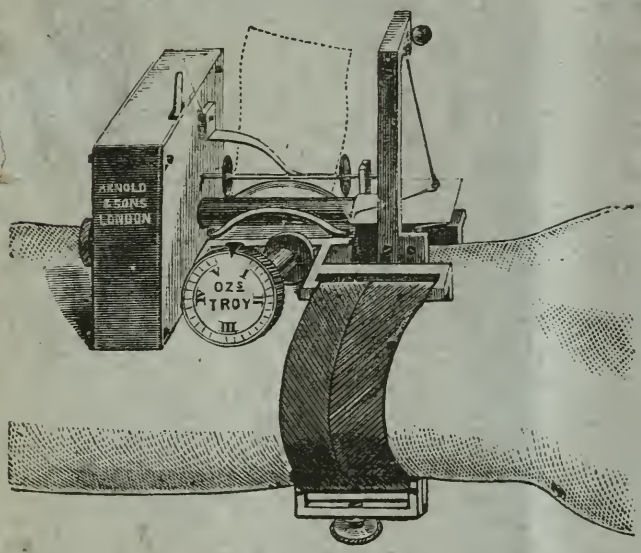
As suggested by Dr. DUDGEON.—*Vide* MED. TIMES & GAZETTE, July 2, 1881.



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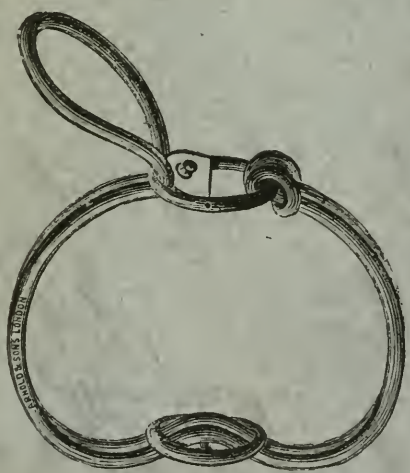

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Vide BRITISH MEDICAL JOURNAL, September 10th, 1881.

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